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ABSTRACT

This study, completed in 1985, is a replication of the 1982 "Survey of Public Participation in the Arts." The data, collected by the Bureau of the Census, represent the largest survey ever undertaken concerning the U.S. public's cultural activities and attitudes. Interviews were completed with a national sample of 13,675 persons. The survey was designed to investigate: (1) the audience size for individual arts activities and for arts as a whole; (2) the relationship between attendance at live performances and participation through watching television and listening to radio and recordings; (3) arts participation in relation to geographic regions and community types and sizes; (4) the relationship between social, economic, and demographic characteristics and participation in the arts; (5) the effect of family background; (6) competition from non-art activities; (7) the extent and nature of unsatisfied demand for arts activities; (8) reasons for nonattendance on the part of those who would like to attend; (9) the relationship of amateur participation to attendance; and (10) the role of formal instruction and a young age exposure to the arts. Almost 40 percent of the respondents had attended a live arts performance, and 3 percent had appeared in a public performance during the previous year. Tables and graphs are included. Appendices include survey documentation and background on methodology, and a list of occupation codes. (JHP)

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March 1987

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SURVEY OF PUBLIC PARTICIPATION IN THE ARTS:

VOLUME I, PROJECT REPORT

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EXECUTIVE SUMMARY

The 1985 Survey of Participation in the Arts (SPA'85) is a replication of perhaps the largest single survey ever conducted on the cultural activities and attitudes of the American public. In this national survey, interviews were completed with a probability sample of 13,675 respondents across the country. The SPA'85 included a separate national sample of about 2,200 respondents over age 18 in each of the first six months of 1985.

The SPA'85 data were collected by the United States Bureau of the Census to ensure that they met rigorous scientific standards of sample design, respondent cooperation and interview standardization. This also ensured that these arts participation data could be projected to the national population with unprecedented confidence.

SOME GENERAL FINDINGS

Attendance at Live Arts Performances: Extensive data were collected on the public's reported attendance at seven "core" types of live arts performances and events. The following levels of annual participation rates were found across the seven art forms:

Opera	3%
Ballet	4%
Jazz	10%
Plays	12%
Classical Music	13%
Musicals	17%
Art Museums	22%

Almost 40% of all SPA'85 respondents reported having attended at least one of these seven types of live arts performances in the previous 12 months.

In addition, more than 3% of the sample, representing almost 5 million American adults, reported that they, themselves, had appeared in a public performance of one of these types of arts events in the previous year.

SURVEY METHODOLOGY

Respondents in the survey were part of a larger continuously rotating panel of respondents who were interviewed every six months over a three year period. These individuals lived in households selected by the U.S. Census Bureau to be randomly representative of the total U.S. adult population 18 years of age and older. Census Bureau population counts were used to draw the sample in such a way that all individuals living in households in the United States had a known and equal chance of selection. The sample frame was the same as that used in the 1982 survey.

All individuals aged 18 and over in these selected households were eligible to be included in the survey. Less than 15% of all eligible individuals in these selected households could not be interviewed. The final data were weighted slightly to ensure that the final sample was completely representative of the 1985 U.S. population in terms of age, race and gender.

About three-quarters of these interviews were conducted face-to-face in the respondent's home. Respondents who were not at home at the time of the interviewer's visit were interviewed by telephone. No effective differences were generally found between these in-home interviews and the telephone interviews. The interview took about five minutes to complete for the first six months of 1985 (i.e., January through June).

Each month's interview began with the survey's "core" questions, which referred to general arts participation during the previous 12 months. A second set of "rotating" items (about arts socialization, mass media usage, music preferences, etc.) then completed the interview; unlike the 1982 survey, there were no interviews that contained all of these rotated items.

The completed questionnaires were returned to the Census Bureau in Suitland, Maryland, where they were edited for final keying onto a computer tape. These coded survey answers were then merged with the coded data on each respondent's background (e.g., age, education, race) obtained in the panel part of the Census Bureau survey. These background data were then weighted to reflect U.S. population characteristics and projected to the total U.S. adult population.

Several statistical analyses have been applied to the SPA'85 data: cross-tabulations, correlation coefficients and odds-ratios. The data were also subjected to factor analyses and cluster analyses to identify basic underlying dimensions of activity participation and preferences. These were used to construct indices of various characteristics: single numbers that indexed or summarized each respondent's overall attendance at arts performances or arts socialization experiences, for example.

In addition, special tabulations were produced by a computer program called Multiple Classification Analysis (MCA). The advantage of MCA is that it can produce estimates of the participation of population sub-groups that are "purified" or adjusted for the statistical effects of other factors. These adjusted figures are preferable to simple percentage differences, which can be misleading if they are largely a function of other variables that predict participation (like education or age).

Audience Characteristics: The segmentation of the public attending these seven types of arts events followed a fairly regular pattern. Thus, attendance at live arts events was:

- Mainly related to a person's socio-economic background, particularly in terms of education, but also in terms of occupation and income;
- Higher among women than among men (being particularly high among unmarried women with no children);
- Higher among middle-aged and younger adults than among older people;
- Lower among rural residents than among people living in urban or suburban areas; lower also among residents of the South than other regions;
- Slightly higher among unmarried adults than among married people -- and slightly higher among adults with no children living in their households (than among adults with children in their households);
- Lower among respondents who were not in the labor force (full-time homemakers, retired, unemployed, etc.) vs. those who were employed in a paid job;
- Higher among white respondents than among blacks or other racial groups.

Many of these population background differences, however, did not hold up after other factors were controlled statistically. In particular, the differences by income, occupation, age, region, employment status and race were considerably reduced or eliminated after statistical control for other factors -- especially after control for the respondent's gender and educational background.

It would not seem appropriate, therefore, to consider these other demographic factors as important determinants or predictors of arts participation. That is not to deny there are some interesting differences to be found across income, age, geographic, and other demographic categories, only that they are not of major significance in differentiating arts activity in the American public.

Other Arts Activities: The SPA'85 data also provided baseline information on several other arts-related activities. For example:

- 86% of the respondents said they had read a book or magazine in the past 12 months; over half (56%) reported they had read a novel, short story, poem or play over that period.
- About a fifth of the respondents (19%) reported reading poetry or listening to a poetry reading.
- Some 40% of the respondents said they had attended an arts or crafts fair in the previous year.
- Some 36% of the respondents reported visiting a historic site for its historic or design value.

In addition, substantial proportions of respondents (representing between 10 and 18 million American adults) reported participating more directly in arts activities. Some 10% reported making photographs, movies or videotapes as an artistic activity in the previous year; 9% reported painting, drawing, sculpting or printmaking; and 6% reported having done creative writing in the form of short stories, poems, plays, and the like. Furthermore, 10% of respondents said they had taken a lesson in some arts-related activity (e.g., literature, music) in the previous 12 months, and over 4% reported doing some form of "backstage" work (lighting, sets, promotion) in connection with a live arts performance.

It might be thought that participation in these other arts-related activities might take time away from, or otherwise interfere with, attendance at the seven types of arts events noted above; however, the SPA survey found exactly the opposite. The more particular individuals participated in these other arts-related activities (e.g., painting, taking lessons, visiting historic sites, making photographs), the more they attended arts performances and events.

This principle, referred to as "the more, the more", is found throughout the topic areas examined in the SPA'85 study, as in SPA'82. As has been found in other leisure activity studies of the public, the more-more pattern is a recurrent and dominant theme in this study, also applying to the survey questions related to mass media usage for arts-related content, to the survey questions related to prior lessons or other "socialization" experiences in music or the arts, to the questions related to preference for more serious types of music, and to the questions related to expressed interest in attending more arts performances and events. The principle applies to most non-arts activities as well: the more active and extensive a person's leisure activities and interests are, then, the more likely that person is to attend arts events and performances. The main exception found in this study was for the activity of general watching of television.

Arts Participation Index: The more-more principle is particularly in evidence for the core arts questions. In general, people who attend one of these types of arts performances are considerably more likely to attend each of the others. Thus, the attendance rate for classical music performance among people who attend opera is 71%, while the attendance rate at classical music performances for people who do not attend opera is only 12%. That means that opera-goers are 5.9 times more likely to attend classical concerts as are non-goers.

Ratios of at least this magnitude were found across all pairings of the seven core arts questions (e.g., the overlap of jazz with ballet audiences, or the overlap of audiences for jazz and art museums). They obviously indicate considerable overlap across arts audiences rather than a pattern of segmentation of the arts audience into jazz fans, opera lovers, etc.

In order to facilitate analyses of the core questions in the report, therefore, a simple index of arts participation was constructed for each respondent. On this index, each respondent was given one point for each separate type of arts performance attended. Thus, a person who attended opera and ballet performances was given a score of two; a person who attended opera, ballet, and classical music concerts was given a score of three. (In no sense should these calculations be taken to imply that participation in one art form is equivalent to or substitutable for participation in another art form. These procedures simply facilitate a statistical analysis of the range of respondent arts activities.)

With almost 40% of respondents participating in at least one arts activity in the previous year (receiving scores of 1 through 7 depending on the number of separate events they attended) and the remaining 60% of non-attenders receiving a score of zero (0) on the index, the overall average score for the entire sample on this arts participation index worked out to be about 0.8 activities.

TEN POLICY QUESTIONS

The SPA'85 was designed to answer 10 major policy questions of importance to the National Endowment for the Arts. As described and elaborated upon by the Endowment's Research Division, these 10 questions were:

1) How large is the current audience for individual arts and for the arts as a whole? As noted above, in terms of the survey's core questions asked of all respondents in the survey, almost 40% of the SPA'85 sample reported that they had attended one of the seven arts events.

   Follow-up questions identified differences in frequency of participation among those people who attended these seven activities. For example, among respondents who reported going to art galleries/museums in the previous month, the average estimated number of such attendances was 1.8 per month; among those who attended live performances of ballet and musical theatre, the average estimated number of performances attended was 1.4 per month or lower.

   Consistent with the more-more principle, considerable overlap was found across audiences for the various art forms. People who attended one type of arts performance were 2 to 10 times more likely to attend another. For example, people who attended a jazz performance were nearly six times more likely to attend a classical music performance than were non jazz-goers. Few distinctive clusterings of arts participation were found. Thus, the idea of highly segmented arts audiences was not supported by the SPA data.

2) For the performing arts, what is the relationship between attendance at live performances and participation via television, radio, and recordings? Consistent again with the more-more principle, respondents who report watching or listening to arts-related content in mass media programs are also more likely to attend live arts performances. Some 25% of respondents who reported watching a jazz program on television attended a live jazz performance, compared to only a 10% attendance rate at live jazz performances for the overall sample (and a 6% rate among those who said they had not seen a TV jazz program). Approximately the same ratios held for listening to jazz on the radio (31% attendance among jazz radio listeners vs. 4% among non-listeners) and on recordings (32% vs. 4%).

The more a person used the mass media for arts-related programs, the greater the likelihood of attendance at live performances. Thus the attendance rate for live jazz performances rose to 44% among respondents who listened to jazz music on all three media (TV, radio and recordings).

Far higher proportions of respondents followed arts-related content in the mass media than attended parallel arts performances in person. Thus, compared to the 10% who attended a live jazz performance, 30% of respondents said they had listened to jazz music on one of the three media outlets: television, radio or recordings.

Roughly equivalent proportions of the sample had heard jazz music on television (17%), on radio (18%) or on records or tapes (19%). About the same proportion of the sample had heard classical music on each of the three media: television (24%), radio (21%) and recordings (21%). Some 35% had heard classical music on at least one of these three media.

However, television was the dominant medium for the other five art forms, moreso for plays and ballet than for opera. For opera, the media usage figures were TV (12%), radio (7%) and recordings (7%), with a total of 17% hearing opera on at least one of these three media. For musicals the figures were 18% for television, 5% for radio, 8% for recordings and 22% for at least one of these three media.

3) Do the extent and nature of arts participation vary with geographic region and with community type and size? Two major geographical factors were examined in SPA'85: whether the respondent lived 1) in a central city located within a metropolitan urban area or 2) within an SMSA but not in the central city, or 3) outside an SMSA -- and whether that location was in the Northeast, Northcentral, West or Southern region of the country. (Census Bureau regulations on respondent confidentiality severely restrict the extent of geographic differences that could be examined in the data.)

SMSA Areas: Residents of central cities within an SMSA were more likely than average to participate in the arts, reporting about half again as much arts participation as people who lived in non-SMSA areas. However, residents within an SMSA, but not in the central city, reported about as high a participation level as those in the central cities. This could be because of the greater presence of more educated and younger adults living within SMSA's but outside the central city.

After control for these and other factors that distinguish respondents from different SMSA areas, the participation levels for respondents inside SMSA's but outside central cities were reduced to about average for the entire sample. However, the participation rate for non-SMSA respondents rose significantly. After adjustment, non-SMSA participation rates were only about 20% lower than those for residents of central cities, rather than the almost 50% lower figure found prior to adjustment.

This adjusted analysis thus suggests that the greater access to arts performances for central city residents may be a factor in their greater participation. Moreover, SMSA residents outside the central city area do not participate more than average once other factors are taken into account. SMSA differences in arts participation were proportionately greater for ballet and opera than for attending classical music, which was more similar across SMSA areas.

Region: Residents of the West region were higher on the index of arts participation than residents in the Northcentral or Northeast regions. Lowest participation was reported in the South, at about a 25% lower rate than in the West.

These regional differences again reflect differences in education, age, race and other background factors across regions. Once these regional differences in background factors are taken into account, arts participation differences are somewhat reduced. The West remains the most active region, but less than 15% higher than the Northeast region and 20-30% higher than the Northcentral and the South regions.

A more detailed analysis of locational factors divided the country into 24 separate areas by region and by specific large cities in each region. As expected, people living in larger cities--San Francisco, Philadelphia and Atlanta-Miami-Tampa--had the highest proportions of active arts participants; relatively high participation levels were also reported in the smaller cities in the Western states.

After controls for demographic differences across these locations, the higher figures for these areas did remain. After adjustment, higher than average attendance at art galleries and reading of literature was reported in small Western cities, while highest attendance at jazz performances was reported by Detroit area residents, at ballet in Boston and at musical theatre in Los Angeles and Chicago.

4) What is the relationship between an individual's social, economic and demographic characteristics and the individual's participation in the arts? The major predictors of virtually all forms of arts participation are those related to the respondent's socio-economic background, in terms of education, occupation and income. Levels of participation tend to be slightly sharper for education than for occupation or income, but it is clear that each socio-economic factor is associated with higher attendance or participation for all art forms.

However, these three socio-economic background measures are highly related to one other. People with more years of education are more likely to be employed in jobs with professional and managerial responsibilities, which in turn are more likely to provide them with higher incomes.

A multiple regression analysis shows that education emerges as the main independent predictor of arts participation. Both income and occupation decline notably as independent predictors once education is taken into account. This statistical analysis suggests that the differences in attendance levels by income and occupation can be linked mainly to the higher levels of income and occupation of people with more years of formal education. In other words, it is not their higher income per se that explains why affluent people attend more arts performances according to this analysis; rather, it is generally because more affluent people have more years of education.

The same pattern is found for occupational differences. However, certain important income and occupational differences do remain even after education and other background differences are taken into account. Respondents in more "people-oriented" jobs are more likely to be arts participants than those in "data-oriented" or "thing-oriented" jobs. For example, in the case of professional occupations, employees in technical and engineering fields are less likely to participate in the arts than are teachers, lawyers or people who work in the social sciences and humanities. The same is true for the income factor in the case of respondents who earn more than $25,000 or $50,000 per year.

Other major demographic factors related to arts participation include gender, age and race. Differences in arts participation patterns by these factors indicate that higher arts participation is associated with being female, middle-aged and white. However, since each of these factors is affected by other factors (especially by differences in the person's level of education), the effect also needs to be examined in the context of these other factors.

Gender: Women report about 15% more participation in the arts than do men. Moreover, when one takes into account their differing education and occupational backgrounds, female participation rates relative to males of equivalent backgrounds more than double.

More detailed analysis also reveals that women who are unmarried and have no children are particularly more likely to attend arts events -- both in relation to unmarried men and in relation to married women.

Age: In general, reported participation is highest among middle-aged people and lowest among older people; participation by 18-24 year olds is slightly lower than for middle-aged groups. These unadjusted figures indicate that attendance begins to decline at age 45, and drops to two-thirds of its peak level among 65-74 year olds and to less than half of that level past age 75.

The adjusted figures tell a somewhat different story. They indicate fairly constant levels of attendance for all age groups up to age 75, including those aged 65-74. Attendance among even the oldest group (aged 75+) drops to only about 25% below average, once one takes into account other background characteristics vis-a-vis arts participation.

Race: Whites report more than 50% more participation in the arts than do blacks, and more than "other" racial groups as well. However, this picture is changed considerably after statistical adjustment. Taking into account different educational levels, SMSA locations and other background characteristics, black participation remains lower than white participation -- but only about 25% lower. The rate for "other" racial groups (mainly Asian-Americans) is 20% less than that for whites, once other factors are controlled.

The SPA'85 analyses also revealed that a person's early socialization experiences, as well as his/her current family background, have an effect on arts participation. These early background factors include the educational background of one's parents, parental arts-related behavior and lessons or classes related to the arts. These factors are examined under Policy Question 10 which follows.

5) What effect does family background have on participation in the arts? In addition to the education, occupation and income analyses just discussed, other household variables were also studied for their impacts on arts participation. Several variables initially show differential levels of participation, but statistical control for related background factors reduces these differences considerably.

Marital status: Never-married and divorced individuals report the most active arts participation on the average. Widowed individuals are least active, at a rate of at least 40% below that of the divorced or never married. Married people are below average in participation, but only slightly so.

However, marital status categories are strongly related to other factors, particularly age. After control for those factors, few of these differences by marital status are maintained, outside the finding that married people still report slightly below average participation.

While marital status *per se* shows little effect on participation, the arts participation of one's spouse is an extremely important determinant of a person's arts activity. If one's spouse attends particular types of arts events, the likelihood that the respondent will as well is over 50% for each type of arts activity.

Presence of Children: Having younger and more children in the household is associated with less arts participation. But the differences are not pronounced. Presence of children under the age of 6 is a more important factor than the number of children: people with 2 or more children under 6 years of age report about a third less participation on the index than those with no children. These differences do not tend to hold up after statistical control and lead to the conclusion that presence of younger children in a household does have some inhibiting influence on arts attendance, but not as large an influence as might be expected and perhaps not much larger than that associated with having older children.

Work hours: In general, it can be seen that people who report longer work hours do not report much less arts participation. For example, people working over 50 hours per week actually attend more arts events than people who do not work at all. This difference is, of course, highly related to age and education--since so many elderly people (who are also less educated) do not work; unemployed people also have less formal education.

Once these factors are controlled, people who do not work emerge as more active arts participants. However, people with the longest working hours are still very close to average in arts participation.

In general, then, these family and household factors tend not to be strongly related to arts participation. This suggests that if people are interested or involved in the arts, they will find some way to fit it into their schedules.

6) Are there patterns of non-arts activities which are associated with arts activities? Among the potential barriers to arts participation are the other activities that can compete for a person's leisure time. A series of 14 such leisure activity or life-style questions were included in SPA'85; they dealt with such general leisure activities as sports and doing home repairs.

Far larger proportions of the sample reported engaging in most of these general leisure activities than was the case for the core arts questions. For example, 86% reported reading a book or magazine in the previous 12 months, 66% playing cards or other games, 59% going to the movies, 58% doing repairs and home improvements and 55% gardening. Responses to these questions, therefore, indicate a considerable amount of the public's leisure activity is unrelated to the arts. This might be seen as competing with the arts for the public's leisure time.

However, rather than interfering with arts participation, attendance at arts performances was progressively higher among people who reported participation in more of these non arts-related leisure time activities. The proportions participating in an arts activity in these more active groups are usually at least double those in the least active groups, and for certain activities are 10 to 20 times higher. The one exception is for general television viewing -- heavier TV viewers attend fewer arts performances than do lighter viewers.

Again, these ratios decrease somewhat after control for other factors, particularly for education and age--which are major predictors of participation in general leisure activities, as well as in arts activities.

At an individual activity level, the four general recreational activities that were somewhat more closely associated with attendance at arts performances were reading books and magazines, attending movies, preparing gourmet meals and exercise activities.

In particular, reading books and magazines was related to attending classical music concerts, ballet and art museums; moviegoing was strongly related to attending jazz, museums, play and ballet performances; volunteer and charity work to attending operas, plays and musicals; preparing gourmet meals to art museums attendance; and exercise with attending jazz and musical theatre performances. In general, however, there did not seem enough individual variation in the pattern of correlations among these general leisure activities to strongly suggest any more specific "life-style" factors (e.g., at-home vs. away-from-home activities) that predicted higher arts participation. The more-more principle seems to provide a simpler and more appropriate depiction of the relation between arts participation and leisure activities.

7) What are the extent and nature of unsatisfied demand for arts activities individually and as a whole? Respondents in SPA'85 were asked whether they would prefer to attend more arts events than they had in the previous 12 months. The question was asked for seven core arts activities, and it was asked of respondents whether they had attended or not attended such an event in the previous year.

The proportion of respondents wanting to attend more events was much larger than the actual proportion of attenders for each type of arts event. For example, in contrast to the 10% who had attended a live jazz performance, more than 19% of the respondents wanted to go to (more) jazz performances. It would appear that latent demand for jazz, as for other art forms, extends far beyond what people now attend.

This latent demand for ballet performances is particularly high in relation to current levels. In contrast to the less than 4% of respondents who attended a ballet performance in the previous year, for example, over three times as many people (12% of the sample) said they wanted to attend.

Overall, about a third of the sample (34%) seemed definitely not interested in the arts: they had neither attended any of the seven types of arts events nor said they wanted to attend any. A slightly lower proportion of the sample (27%) said they wanted to attend, but did not attend any of the arts events. The remainder of the sample (39%) were arts attenders, divided between that 35% who had attended and wanted to attend more, and that 4% who had attended but were not interested in attending more.

In all art forms, proportionally higher numbers of current attenders want to attend more arts events than do current non-attenders. In fact, except for opera, majorities of those who currently attend want to attend more; in comparison, no more than a quarter of those who did not attend want to attend more for any activity. This is, of course, a further example of "the more, the more" phenomenon.

At the same time, greater absolute numbers of current non-attenders want to attend than current attenders want to attend more often. Put in other words, arts planners have a greater per person receptivity to develop an expanded audience for any art form by contacting attenders; but there are greater numbers of non-attenders who say they want to attend (although again less than a quarter of those people say they want to attend). This could present something of a paradox about different marketing strategies for the two groups.

The two sets of questions (attendance and preference for more attendance) generate four types of individuals for each art form:

1) Those who had attended and did not want to attend more

2) Those who had attended and did want to attend more
3) Those who had not attended but did want to attend
4) Those who had not attended and did not want to attend

These groupings can be recombined to show a further paradox regarding which art forms have greatest potential for increased audience. In terms of absolute numbers of people who may want to attend more, these figures show the following unmet audience potentials:

Musicals	20 million people (want to attend more)
Plays	19 million people
Jazz	16 million people
Art Museums	14 million people
Ballet	14 million people
Opera	9 million people
Classical Music	6 million people

These numbers are obtained by subtracting from the estimated numbers who say they want to attend (more), the estimated numbers who currently attend.

However, summing these figures as ratios of the numbers of persons who want to attend divided by the numbers of those who do attend gives virtually the opposite impression:

Ballet	3.0
Opera	2.8
Jazz	2.0
Plays	1.9
Musicals	1.7
Art Museums	1.4
Classical Music	1.3

In other words, almost three times as many respondents said they wanted to attend opera as had currently attended -- compared to less than a one-and-a-half-to-one ratio for attending art museums or classical music concerts.

Ballet and opera, then, show the greatest potential in terms of proportionate growth. But these numbers are also largely a function of the present lower levels of attendance for ballet and opera. At the same time, this higher potential for ballet and opera is reflected in several other proportions: of those who want to attend in relation to those who do attend, of those non-attenders who want to attend in relation to attenders who want to attend more, and of those who want to attend in relation to all non-attenders.

8) What reasons do those who say they would like to attend arts activities more often give for not doing so? Respondents who said they wanted to attend more arts events gave several reasons for not attending more. The pattern of responses to this "arts barrier" question was remarkably similar -- both across the seven art forms and across attenders and non-attenders. The major barrier respondents perceived for not attending more was a personal one, described as "lack of time". This response stands in marked contrast to findings regarding the factors that mainly restrict the free time people seem to have available, which were considered under Policy Question 5.

The second and third most important barriers were cost factors and accessibility factors. The accessibility factor was given as a particularly important reason for not attending art museums more often. Other barriers mentioned with more than average frequency across arts activities were the performances being too far away, problems finding someone to go with and lack of sufficient personal motivation.

9) How is amateur participation related to attendance?
As noted above, about a tenth of SPA'85 respondents said they had made photographs as an artistic activity, or had done painting, sculpting or creative writing in the previous year. The relationship of such active personal arts participation to the core SPA arts participation questions was examined, as well as that for simply being a spectator at arts activities.

Overall core arts participation was considerably higher among respondents scoring high on an index combining these amateur activities (like photography, painting, sculpture, creative writing) and spectator arts activities (like visiting arts/crafts fairs or historic sites). Respondents who reported 5 to 7 such activities were up to five times more likely than the rest of the sample to participate in the seven core arts activities as was the rest of the sample.

Certain of these amateur and other arts activities were related to attendance at arts performances at a higher level than were other activities. Among amateur arts activities, respondents who did creative writing were particularly more likely to attend jazz, play and ballet performances. Those who did "backstage" concert work at arts performances were particularly more likely to attend ballet, stage plays and art museums. Among spectator arts activities, visiting science museums, historic sites and arts/crafts fairs was most highly related to visiting art museums, and to attending ballet, musical theatre and classical music performances -- and to reading literature.

In general, however, the more active, participatory arts-related activities (such as painting or creative writing) were more closely related to the arts participation index than "spectator" activities (visiting science museums or historic sites).

10) How does formal instruction and training in the arts and early exposure while growing up affect later participation? The survey examined instruction and training experiences at various other times in people's lives, such as lessons, appreciation classes, and parental example or encouragement.

The forms of arts socialization most frequently reported in the survey were through music lessons (47%) and parental encouragement of independent reading (67%). In addition, over a third of the sample (34%) reported having taken lessons in some craft (such as pottery or weaving) at some time in their life, and a quarter (25%) reported taking a class in one of the visual arts; nearly one in five (19%) reported having taken art appreciation classes. Also, close to a third of the respondents said their parents had taken them to art museums or to live arts performances, and almost a third said their parents at least occasionally listened to classical music or opera when they (the respondents) were growing up. In all, only 27% of the sample said they had experienced none of these varieties of arts socialization, with 34% not having had classes or lessons and 58% not having parents who took them to arts events or encouraged participation.

There are some distinct age differences concerning when these socialization experiences occurred for this sample of adults. Almost half of those who took music lessons (and about a quarter of the entire sample) reported taking music lessons before they were 12 years old; this pattern of early socialization was also the case for almost three-quarters of those respondents who had taken ballet lessons. More of those who took lessons in the visual and other art forms (acting, writing, crafts), however, took lessons when they were between the ages of 12 and 17; 31% of all respondents also reported taking music lessons during this period in their lives.

The peak years for appreciation classes, however, were "the college years", that is between the ages of 18 and 24. At least one respondent in ten reported having taken such a class at that point in their lives, and roughly one in ten reported taking lessons in music, visual arts media, acting, creative writing and crafts activities. Except for the slight increase in crafts activities, reported participation levels in all classes and lessons dropped dramatically past age 25. It would appear that most arts learning and training experiences are largely confined to those periods in peoples' lives when they are under the age of 25.

Consistent once again with the more-more principle, people who report more socialization experiences also report higher attendance at related arts events. For example, respondents who had taken music lessons, who had music appreciation classes, or who had parents who listened to classical music were about three times more likely to report attending a live jazz performance or a live classical music performance than were respondents who reported not having grown up with such experiences; they were also more likely to attend operas and musical theater. The strongest impact on adult arts participation was found for ballet: those who reported having had ballet lessons were almost 6 times more likely to attend a ballet performance than those who had not had such lessons.

People who had taken both music lessons and music appreciation classes are more likely to attend live classical music performances than are people who have taken only one or the other. However, both socialization and attendance are related to common demographic factors, like education and age. When these factors are controlled statistically, the differences between socialized respondents and non-socialized respondents diminish considerably -- sometimes to about half the differentials noted above. Thus, as was the case with exposure to the mass media, people reporting various arts socialization experiences (usually in their teen-aged years) appear to be half to two-thirds again as likely to report attending a related arts event as those who have not had such socialization experiences, other factors being equal.

CONCLUDING REMARKS

SPA'85 is a comprehensive body of national survey data concerning the American public's arts activities. It identifies major demographic determinants of arts participation, in particular a person's level of education. Within certain education categories, income, occupation, gender and age also seem to exert some influence on the public's arts participation. On the other hand, marital status, presence of children and paid work demands generally do not seem important inhibitors of arts participation. With a few notable exceptions for particular art forms, living in different geographical regions of the country, or in urban or rural areas, is not related to large differences in arts participation.

With regard to the influence of the other, non-demographic factors examined in SPA'85, there is a clear tendency for people already involved and active in leisure pursuits and arts-related activities to participate more. Thus, present arts participants are disproportionately more likely to watch or listen to arts-related content in the mass media, to like jazz or classical music, to be active in other arts-related activities and to be generally active in other away-from-home leisure activities than are non-arts participants. Moreover, those who are already participating in the arts are more likely to say they would like to participate even more.

Among these factors, attention to the mass media emerged as the most important overall predictor of arts participation, indicating this to be a very important outlet or stimulant for arts appreciation. Nonetheless, as with all the factors in this study, it is not possible from a single survey to state definitively which factors are causes of arts participation and which are themselves a result of attending some arts events.

The present analysis represents only a brief look at this very rich source of data on Americans' arts participation. Only now are certain local and regional arts agencies beginning to examine the relevance and applicability of these data for their own communities. Data collected in future national surveys will be able to use the 1982 and 1985 surveys as benchmarks for determining long-term trends in the role of the arts in the daily life of the American public.

Much work has yet to be done to identify the idiosyncratic patterns of arts participation within important subsets of the American public: e.g., racial and ethnic groups, retired and unemployed people, low income groups and people living in more remote rural areas. The same is true for arts participation patterns within the same household, in relation to how the attitudes and behavior of husbands and wives (or children and grandparents) in the same household influence arts participation of other household members. Nor has much analysis been undertaken to identify important patterning or segmenting of arts activities for certain groups of individuals.

We should consider, therefore, that the analysis contained in this report only scratches the surface of the potentials of the SPA'85 data for future arts planning and development. Data tapes, disks and "user-friendly" manuals are currently being developed at the University of Maryland to aid in the process of disseminating these data to the widest possible audience and community of users.

Chapter 1

INTRODUCTION

The 1982 Survey of Public Participation in the Arts (SPA'82) represented an important advance in our understanding of the nature and extent of the role of the arts in American daily life. While several national and regional surveys had been conducted on public participation in, and attitudes about, the arts in American life prior to SPA'82, they were subject to several limitations. The studies conducted up to 1980 had not adequately articulated a standard definition of arts participation for particular arts activities (e.g., opera, jazz). Nor had they fully or consistently examined various modes of arts participation as performer, audience member or user of the mass media. The incompatibility of question wording and of procedures employed in data collection across the various studies prior to 1980 limited their use in identifying trends in arts participation over time.

In addition, most of these studies depended upon telephone surveys which, compared to personal interviews, tend to overrepresent the more educated and affluent portion of the population. These problems were compounded by uncertainties about the response rates that could be obtained in such studies. They indicated the necessity, then, for a more systematic and definitive collection of arts participation data that could be generalized to the American population with suitable confidence and could be replicated regularly to track trends in participation.

This document represents Volume I of the final report for SPA'85. Like the earlier report on SPA'82, this report is a self-contained description of the SPA'85 methodology and results. However, given that there have now been two SPA surveys, one for 1982 and one for 1985, this report also contains a second volume which separately analyzes changes in arts participation during the three year interval which separates the two surveys.

PURPOSES OF THE SURVEY OF PUBLIC PARTICIPATION IN THE ARTS

The Survey of Public Participation in the Arts establishes for the first time the extent of public participation in specific arts activities in the United States. Such data can be used for several policy-making purposes in addition to estimating the number of arts participants. These include: (1) establishing a benchmark against which to compare future levels of arts participation; (2) identifying segments of the population that are more or less active in the arts; (3) determining factors that seem to stimulate or inhibit arts participation; and (4) identifying various types of arts participation. The data, then, will be used as a basis for identifying trends in arts-related behavior in the United States. Accordingly, we have designated the 1985 study with the acronym SPA'85 to distinguish it from future studies and from the 1982 survey.

The data were collected in household surveys conducted by the U.S. Bureau of the Census, involving mainly personal interviews with a large cross-section sample of adult Americans (over age 18) as part of a larger social indicator study of the American population. The recognized quality and care of the Bureau's work is the major attractive feature of this data collection method. The Bureau's ability to collect standardized data with minimal distortion due to respondent noncooperation and sampling bias is unsurpassed.

The Census Bureau interviewed approximately 2,200 respondents during the first six months of 1985, so that arts participation data are available for over 13,000 respondents.* The Survey Research Center of the University of Maryland consulted on the design and execution of the study and supervised the preparation of the data tapes, the subsequent analysis of the data and the preparation of this report.

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* Due to administrative and budgetary constraints, SPA'85 data collection was limited to the first six months of 1985, unlike the SPA'82 data collection schedule which covered the entire year.

ORGANIZATION OF THIS REPORT

Material in subsequent analyses in this report is organized into nine chapters. Chapter 2 examines in detail the field procedures and methodology used in the study, with further details given in Appendix A. Chapter 2 and Appendix A examine not only the field work and sampling aspects of the study, but also the questionnaire design, the procedures for coding and data processing and the basic analysis methods employed. Detailed examples are given of how the techniques of cross-tabulation, factor analysis, and the regression technique called "Multiple Classification Analysis" can be applied to the arts-related questions examined in this study. These analytic techniques are the main ones employed in Chapters 3 through 9.

Chapter 3 examines the "core" participation questions or attendance at seven types of live arts performances and events: jazz, classical music, opera, musicals, plays, ballet, and art galleries and museums; in addition, the reading of more serious forms of literature (i.e., novels, short stories, poems, plays) is included in this set of core questions. These eight core questions were asked in each of the six months of the survey and are thus available for all 13,675 respondents in the survey. (The "core" questions will be a phrase used throughout this report to refer to measurements of participation in these eight arts-related activities.) In addition, questions were included on participation as a performer in several of these types of activities.

Chapter 4 examines certain methodological features and more detailed specialized analyses of these Chapter 3 data on core question participation. Among the methodological questions addressed are: What seasonal or month-to-month variations can be found in arts-related activities? How internally consistent are respondent reports of monthly participation with their reports of annual participation? How consistent are audience attendance data from arts organizations with other American surveys of arts participation conducted in this country, and with surveys of arts participation conducted in other countries? In addition, more detailed analysis of differences in participation is provided by the respondent's occupation and by the arts participation of the other members of the respondent's household.

Chapter 4 also briefly examines the various types of facilities or locations at which arts performances are attended; that is, whether arts performances are seen in public or private facilities, in theatres, or in religious or educational institutions.

Chapter 5 is the first of the five chapters dealing with the rotating or "non-core" survey questions, which were asked only in certain months of the survey (the schedule of these rotating items varied month by month, as shown in Table 2.2 of Chapter 2). Chapter 5 deals with more general questions about leisure--namely items that asked respondents to describe their participation in other leisure and recreational activities. Some of these items were general activities (e.g., movies, gardening) and others were more cultural in orientation (e.g., poetry readings, visiting science museums). Answers to these items, therefore, put each respondent's arts-related activities into the context of general everyday activity patterns, and allow one to examine the extent to which these activities seem either to stimulate or to inhibit arts participation.

Chapter 6 examines the extent to which the public uses the mass media for arts-related content. How many American adults watch theatre or ballet on television? Do they listen to jazz or classical music on the radio, or on pre-recorded tapes and records? Responses to those media questions make it possible to measure the amount of arts exposure and participation that take place outside of attendance at live performances, as well as the relationship between media participation and relates to attendance at live performances.

Chapter 7 examines the extent of the respondents' prior "socialization" into the arts. Socialization questions include having taken lessons or classes in music or other art forms, courses in music or art appreciation, and parental exposure to, and encouragement of, arts-related activities. These questions make it possible to examine the extent to which public participation is a reflection of this prior exposure to the arts. For example, how much of the arts audience is made up of people who have had such prior experience with the arts?

Chapter 8 deals with the respondents' interests in increased arts participation, and with the perceived barriers that respondents feel inhibit increased arts participation on their part. Barriers examined include not only external problems, such as cost or distance factors, but also internal factors like lack of personal interest and motivation. These questions therefore, reflect the "untapped" markets for arts exposure, and the factors that limit these potential arts audiences.

Chapter 9 is devoted to examining respondents' music preferences. What proportions of the public enjoy listening to classical music, to opera, or to jazz, rock or country-western music? How do these music preferences cluster together, and what is the demographic make-up of the audience for a particular type of music or music cluster? What is the relation of these music preferences to attendance at live arts performances?

Because each of the rotating items was only asked on one month's survey, and SPA'85 data collection covered only the first six months of the year, it was not possible to do any combined analysis of all the factors bearing on participation as was done in the 1982 survey. Readers interested in such an analysis should consult the 1982 report, Chapter 10 of which explores the relative strength of the major rotating survey questions in predicting participation in core arts questions. Arts socialization experiences, mass media exposure to the arts, music preferences, general recreation activities and arts-related recreation activities were compared in this respect.

As described further in Chapter 2, the exposition of survey material in Chapters 5 through 9 (and to a large extent Chapter 3) is organized in the following order of presentation:

1) Exact question wordings and the number of responses to each response alternative for each focal question for that chapter;
2) Percentages of the responses to each question;
3) Cross-tabulations of responses by basic demographic factors;
4) Adjusted cross-tabulation for these demographic factors by Multiple Classification Analysis;
5) Factor analyses of how these questions are mutually related in potential clusters of more strongly correlated variables, based on 1982 SPA results.
6) Indices to summarize these variable interrelationships, as well as the demographic differences in these indices;
7) Relation of the responses to the individual questions in each chapter to the core arts participation questions (as reported in Chapter 3);
8) Relation of these indices (in each chapter) to the core participation questions.

Detailed information on the survey methodology is given in the next chapter, with fuller details provided in Appendix A. Readers interested in the survey results can proceed directly on to Chapter 3, although they may need to refer back to Chapter 2 for further explanation of the methodological techniques and conventions used in this report.

Chapter 2

FIELD PROCEDURES AND METHODOLOGY FOR SPA'85

The 1985 Survey of Public Participation in the Arts (SPA) interviewed a representative national sample of 13,675 persons aged 18 and over about their participation in the arts, their arts experiences and preferences. Interviews were conducted mainly in person in six separate months: from January of 1985 through June of 1985. Each month's sample was made up of a separate national cross-section sample of about 2200 respondents.

The sample consisted of supplemental interviews in randomly selected households in a continuous omnibus survey conducted by the Bureau of the Census for various federal agencies. That panel study has been conducted regularly since July 1972. In the national sample of this omnibus survey, 72,000 households are visited over a three and a half year period, with new units replacing expired ones at the end of that period. It is a sample of housing units and not individuals. Respondents in these omnibus survey households are interviewed every six months over a three and a half year period for a total of seven interviews.

In order to have minimal impact on the responses to other parts of the survey, the SPA sample consisted solely of respondents in households in the final (seventh) round of the panel -- called the "exit rotation." That meant that most respondents had been interviewed before (up to six times over the previous three and a half years). The SPA survey questions thus came at the end of the seventh round of interviewing. Interviewing took place each month at approximately 10,000 households, of which about one-fourth were administered the SPA.

The same rules for confidentiality were applied to the SPA as were used for the larger survey. In each eligible household, all members who were 18 years of age or older were to be included in the SPA sample, thus making the sample self-weighting in terms of adult household composition. The SPA questions were asked immediately after the omnibus survey questions were completed. If the eligible respondent could not complete the SPA in person, it was completed by telephone.

It is unclear whether, or how much, responses to the SPA questions were affected by their being asked in this context of a seventh survey round with repeated questions about other topic areas. Respondents might have underreported participation in order to complete the survey more quickly (having learned that "yes" responses lead to additional questions while "no" responses skip to other parts of the survey) or because they saw these questions as some follow-up check on these questions. On the other hand, they might have overreported participation because they had little activity to report, wanted to please or impress the announced sponsors of the survey (the National Endowment for the Arts), or desired to portray themselves to interviewers as cultural, literate or sophisticated individuals. (Although no strict experimental evidence was collected to verify the extent of any such biases in reporting, a follow-up telephone survey conducted at the University of Maryland produced activity estimates that were close to those in the SPA, suggesting no major biasing effect of the field procedures used in the SPA.)

Table 2.1: Core Arts Participation Questions

1. The following questions are about YOUR activities during the LAST 12 months— —between __________ 1, 19 ___, and __________ ___, 19 ___.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH— — between __________ 1, and __________ ___, 19 ___?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0 ☐ No

Yes — How many times did you do this LAST MONTH ?

1 ☐ None

2 ☐ One

3 ☐ 2–3

4 ☐ 4–5

5 ☐ 6 or more

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0 ☐ No — *Skip to 9a*

1 ☐ Yes

8b. Did you play any classical music?

0 ☐ No

1 ☐ Yes

8c. Did you play any jazz?

0 ☐ No

1 ☐ Yes

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0 ☐ No — *Skip to 10*

1 ☐ Yes

9b. Did you act in a non-musical role?

0 ☐ No

1 ☐ Yes

9c. Did you sing in a musical play or operetta?

0 ☐ No

1 ☐ Yes

9d. Did you sing in an opera?

0 ☐ No

1 ☐ Yes

9e. Did you dance in a ballet performance?

0 ☐ No

1 ☐ Yes

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0 ☐ No

1 ☐ Yes

Outline of the Questionnaire

The SPA questionnaire was divided into two types of questions: a set of core items on annual arts participation, and a set of rotating items that surveyed correlated activity patterns and predictors of that participation. Table 2.1 shows the core participation items, which include questions both on participation at arts performances or events as an attender (questions 1-7 and 10) and on participating in these same activities as a performer (questions 8 and 9). More detail on the extent of attendance at arts events was collected for the previous month, as well as for the year (see Table 2.2 for the survey question sequence for each month).

Because the sample was chosen to be representative of the entire population of the country with a maximal response rate, the results of the survey can be extrapolated to produce fairly precise projections of the number of participants in each of several arts-related activities. It was designed to generate population estimates of the number of people who have visited an art museum, who have attended an opera, or who themselves have taken part in stage performances. Moreover, because of the size of the sample, it is possible to derive useful estimates from them for certain participation rates for the arts-- the proportion of arts participants in particular locations (e.g., more rural areas, New York City, the South), or from particular population groups (certain minority groups, less affluent segments, the retired). These analyses can identify patterns of participation on each of these factors. Cyclical patterns across the year can also be examined.

It also becomes possible to examine the interrelation between various forms of arts participation to answer the question of whether participation

TABLE 2.2: Question Sequence in SPA'85

Category	Questions and Content	Asked in These Months
(1) Barriers to participation	13 reasons preventing participation (e.g., cost, distance, time).	January
(II) Socialization experiences	Lessons taken in music, visual arts, theatre, writing, crafts, art appreciation, music appreciation. Parental escort to music/opera, museums, dance, or encouragement of reading.	February
(III) Recreational lifestyle	Participation in any of 14 recreational sports (hobby, spectator, etc.) activities over the prior year.	March
(IV) Performance locations/ favorite music	Attendance at any of 11 types of arts facilities. Like to listen to 14 types of music.	April
(V) Other arts-related participation	Attendance at art festivities, monuments, museums, experiences involving arts; take part in crafts, staging or artistic activities.	May
(VI) Mass media participation	Television, radio and recordings related to jazz, classical music, opera, musicals, plays, ballet, and art galleries.	June

in one form of arts activity appears to have an effect on participation in other forms. Is attending an opera performance related to attending classical music concerts or does the reverse hold true? Or are they unrelated? Multidimensional analyses of prior studies of arts participation (e.g., Reed and Marsden 1980; Peterson and Hughes 1982) have identified several patterns of arts participation. The SPA data make it possible to verify whether these earlier clusterings hold for a very large and representative national sample. The SPA patterns can also be used to better organize and simplify subsequent multivariate analyses that attempt to identify the factors that determine arts participation.

Subsequent sections of this chapter deal in more detail with:

A) The sample design and procedures for the larger omnibus survey;
B) Measuring sampling error;
C) General data collection organization;
D) Interviewing procedures for the larger omnibus survey;
E) Field procedures and data processing for the SPA;
F) SPA questions and rationale;
G) Coding and data entry;
H) Weighting procedures;
I) Methods of statistical analysis;
J) Multiple Classification Analysis (MCA);
K) Factor analysis;
L) Index construction.

A) SAMPLE DESIGN AND PROCEDURES

The larger Census Bureau project consists of interviews conducted each month at a sample of households selected by scientific sampling methods from 376 sample areas throughout the United States.

1. Sample Design

a. Sample areas, called Primary Sampling Units (PSU's), were established as follows:

- All of the counties in the United States were classified either singularly or in combinations with other counties. Those with similar characteristics such as growth, population, principal industry, and type of agriculture, were grouped together.
- From each group, one or more counties, or combinations of counties, were selected to represent that group. These representative counties (or combinations) are called PSU's.

b. Within each PSU:

- A sample of Census Enumeration Districts (ED's) was selected from the 1970 Decennial Census.
- The selected ED's were divided into small groups of addresses called segments.
- Each segment consisted of a group of addresses which was assigned for interview.

c. Five types of segments were determined: area, address, special place, permit, and census supplementary (Cen-Sup). In all segments, the sample consisted of addresses, not persons or families.

d. The sample also included housing units constructed since the most recent census.

- In places where building permits were issued for new construction (Permit Areas), a sample of building permits issued since the last Decennial Census was selected. These addresses were assigned as permit segments.
- In places where no building permits were required (Non-Permit Areas), newly constructed units were listed and interviewed in area segments.
- In Non-Permit Areas, only area segments were assigned.

e. Some sample units were located in special places, with special living arrangements, such as dormitories, institutions, convents, or mobile home parks. Units from the 1970 Census which were identified as belonging to a special place were designated as special place segments.

- Special places which were not identified as such in the 1970 Census may appear in area and address segments.

Further details on sampling procedures are given in Appendix A to this report.

B) MEASURING SAMPLING ERROR

1. Sample

Since survey estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and enumerators. As in any survey work, the results are also subject to errors of response and of reporting, as well as being subject to sampling variability.

The estimates of standard error produced from the sample data are primarily a measure of sampling variability (that is, of the variations that occur by chance because a sample rather than the whole of the population is surveyed). The estimates of standard error also partially measure the effect of response and enumeration errors, but they do not measure, as such, any systematic biases in the data.

Each estimate made from the survey process has its own variance and resulting standard error. It is, however, impractical to compute an estimate of the variance for every sample estimate. Therefore, variances are estimated for a small subset of the sample estimates. These variances are then generalized to be applicable to all estimates from each of the various aggregate estimates (e.g., percentage attending jazz performances, percentage watching classical music performances on television, percentage liking rock music).

The total error of an estimate involves a component, in addition to the variability due to sampling, which is called non-sampling error. This component is called the bias of the estimate. The bias is the difference between the average of all possible samples (this average is conceptual since only one sample is used) and the attempted value to be estimated.

This is the result of:

a. The types of estimates being produced (e.g., ratio estimate). These are known to be biased but are preferable to certain other unbiased estimates because of the amount of reduction they bring to the variance of the estimates.

b. Systematic errors in response. These can result from recall problems, interviewer effect, questionnaire wording, etc.

c. Processing errors. These can result from duplication or omission of units in the sampling frame, methods of adjusting for nonresponse, coding, classification, and edit errors, etc.

The amount of bias cannot be directly observed and estimated. It is known to exist, though, and during the survey process, efforts are made through design and control operations to limit its effect.

2. Variances and Sample Errors for the SPA

With respect to the sampling errors for the SPA portion of the sample, Table 2.3 shows first the theoretical sampling error for this size sample and then the actual observed variation for a variety of SPA questions. As shown in this table, the proportion of respondents who said they attended a live jazz performance in the previous 12 months was 9.5%. Using the theoretical mathematical formula to compute sampling errors, one standard error for this size sample is:

$$\sqrt{\frac{.095(.905)}{13,675}} = .0025 \text{ or } .25\%$$

The population bounds for these questions for 95% confidence is obtained by roughly doubling this interval of .25%, or about .50%. This means that the 95% confidence interval falls 0.5% above and below the average estimate (i.e., between 9.5% - 0.5% and 9.5% + 0.5% or between 9.0% and 10.0%).

But that is the theoretical proportion for a completely random sample,

TABLE 2.3: Sampling Error Calculations

At Least Once in the Last 12 Months	Estimated Participation Rate	Theoretical Standard Error (n=13,675)	Theoretical Standard Error (n=6,838)	Observed Standard Error (n=6,838)	Design Factor
Attended:					
Jazz	.095	.0025	.0035	.0049	1.40
Classical Music	.126	.0029	.0041	.0038	0.93
Opera	.028	.0014	.0020	.0013	0.65
Musicals	.166	.0032	.0046	.0065	1.41
Plays	.116	.0027	.0039	.0050	1.23
Ballet	.043	.0017	.0025	.0022	0.88
Movies	.605	.0102*	.0144	.0164	1.14*
Visited:					
Art Museums	.220	.0035	.0050	.0053	1.06
Historic Sites	.358	.0100**	.0141	.0180	1.28**
Arts/Crafts Fairs	.398	.0102**	.0144	.0202	1.40**
Performed in Public:					
Played Classical Music	.0085	.0008	.0013	.0015	1.15
Played Jazz Music	.0068	.0007	.0010	.0009	0.90
Danced in Ballet Performance	.0012	.0003	.0004	.0003	0.75
Acted in Non-musical Role	.0081	.0008	.0013	.0011	0.85
Sang in Musical Play or Operetta	.0083	.0008	.0013	.0009	0.69
Sang in Opera	.0004	.0002	.0003	.0002	0.67
Read:					
Books and Magazines	.857	.0073*	.0103	.0149	1.45*
Novels, Short Stories, Poetry or Plays	.558	.0042	.0059	.0080	1.36
Read or Listened to Poetry	.190	.0082**	.0116	.0120	1.03**

					1.07 Average

* Actual sample size = 2294
** Actual sample size = 2374

and SPA respondents were chosen by clustered random sample. As noted above in Section 1 of this chapter, that means that clusters or segments of households (about 4) in a neighborhood were chosen. Since people in neighborhoods may tend to share certain characteristics (such as going to jazz or classical music performances), that raises the possibility that the effective after-sample size is lower because of this clustering due to the homogeneity of people who live in the same area.

Further clustering was introduced in the SPA by interviewing more than one member in a household, since persons who live together also share and determine each others' activities to a greater extent than do people who share space in the same neighborhood.

Methods for measuring the effect of this clustering (described as the design factor) are: (1) to treat the total sample as a series of random samples of half the size of the total sample; and (2) to observe how much larger the sampling variance for this half-sample is than the theoretical figure described here. In other words, the 13,675 respondents would be randomly divided into half-samples of about 6,800 respondents each, and the variations in estimates for these half-samples would be compared to the variation expected theoretically.

For the present study, 16 such half-samples were generated. In the case of jazz performances, the first half-sample of 6,742 chosen at random produced an estimate of 9.9% attendance of jazz performances, or 0.4% more than the overall average; (its complementary sample of 6,933 produced a figure of 9.1%; that was, of course, equivalently 0.4% below the overall average for the total of 13,675). The second half-sample produced an estimate of 9.8%, the third 9.2%, the fourth 9.1% and the remaining 12 half-samples produced figures of 10.0, 9.7, 10.0, 8.4, 9.2, 10.0, 9.8, 9.9, 9.1, 10.0, 10.2 and 9.3. These 12 estimates are clearly rather close to the overall observed average of 9.5%. But are they as close as the theoretical sampling formulas for this size sample would predict?

That is estimated from the sum of each of the half-samples. There the deviation from the overall average for the first half-sample is 0.4%, as noted above, 0.3% for the second, 0.3% for the third, 0.4% for the fourth and then 0.5, 0.2, 0.5, 1.1, 0.3, 0.5, 0.3, 0.4, 0.4, 0.5, 0.7, and 0.2. The average deviation for these 16 figures is about 0.4%; the standard deviation from the statistical formulas is closer to 0.5%.-- 0.0049 to be exact. In contrast, the theoretical figure for a completely random sample of size 6,838 is:

$$\sqrt{\frac{.095(.905)}{6838}} = .0035$$

which is about two-thirds as large as the .0049 figure that is observed.

Therefore, we estimate that the overall design factor due to sample clustering is the ratio of .0049/.0035, or 1.40. This means that the sample may be seen as 40% less efficient than an unclustered random sample of the same size. Thus, the effective sample for this question is only about two-thirds as large as the number of people actually interviewed. The design factor shown for several other questions in Table 2.3 also have ratios of about the same magnitude, but most design factors are considerably lower, with a few being below 1.00. The overall average design factor is only 1.07, which is rather close to the estimates from simple random sampling.

C) GENERAL DATA COLLECTION ORGANIZATION

1. Regional Offices

There are 12 permanent Census Regional Offices whose combined territory includes all 50 states and the District of Columbia. Each Regional Office is staffed with one supervisor and one clerk who works on the project on a full-time basis. The field staff consists of about 60 senior interviewers who assist the supervisors in conducting observation and reinterviews, and about 500 interviewers. For purposes of operating the offices and training the field personnel, there are several manuals, training guides and control forms in use.

2. Interviewer Selection and Training

Potential interviewers are recruited and given a written standard aptitude test of 35 questions. Twenty-three or more correct responses is an acceptable score. Interviewers then complete the initial self-study package on the larger survey and attend a two-day classroom training session conducted by supervisors. Subsequent to classroom training, each interviewer is observed during the first one or two days of actual interviewing. Each new interviewer is again observed for one day during the second month of interviewing. Observations are conducted by either a supervisor or a senior interviewer. In addition to the basic training, all supervisors and interviewers receive regular monthly instructions to reinforce previously learned concepts and techniques or to present new material.

3. Enumeration and Checks

Each interviewer is assigned about 30 households to interview in various segments as close as possible to his/her residence. Enumeration is completed within the first two weeks of every month. The quality of interviewing is maintained through (1) direct observation of all interviewers at least once a year; (2) office editing of completed work to ensure that instructions have been followed, entries are consistent and required items are filled; (3) verification of interviewing by reinterview. Five percent per month of all households are assigned for reinterview. Reinterviewing helps to evaluate the impact of errors on variations in response. It also measures errors in coverage of the sample arising from incorrect listing, and detects failure to conduct interviews at the correct address, noninterview misclassifications, and missed units or incorrect application of definitions of housing units and household members.

4. Preparation for Interviewing

Each month interviewers receive Control Cards for each sample unit in their assigned areas from their regional office. Those with only the heading filled in show that the sample unit is to be interviewed for the first time. This card is the basic record for each sample unit. The front part contains the address of the unit and basic household data such as the names, ages, race, education, and other demographics of every person living in the household if the household has been contacted before.

The interviewers also receive a supply of basic "Screen Questionnaires" which contain identification items, personal characteristics, household screen items and individual screen items. In addition, the interviewers are given an Information Card Booklet to be used in completing the interview.

Further details on general data collection, organization, and procedures are given in Appendix A.

D) INTERVIEWING PROCEDURES FOR THE LARGER OMNIBUS SURVEY

As explained previously, the Survey of Public Participation in the Arts was a supplement to the omnibus national survey which was conducted first. This section describes the procedures for conducting this omnibus survey, and the following section describes the procedures for the specific questions.

1. "Dear Friend" Letter

Before the scheduled field interviews, a "Dear Friend" letter informing each household about the survey is sent to the sample household before the first enumeration. A differently worded "Dear Friend" letter is sent before each subsequent enumeration. The introductory letter informs the household of the interviewer's impending visit and provides information required by the Privacy Act of 1974.

2. Interview Method

The first step in the interview itself is the introduction, during which the interviewer introduces himself or herself, states that the U.S. Bureau of the Census is conducting the survey, and shows the respondent an identification card. An explanation of the nature of the survey is given, and it is verified that the respondent has received the introductory letter which provides information required by the Privacy Act.

If the respondent requires more information, the interviewer explains why the particular respondent was chosen and provides an explanation of the survey's confidentiality; that all information about individuals is held strictly confidential by law; that the name and other information that would permit personal identification of the respondent is not available to persons other than those involved in the survey; and that the information from all respondents is combined to obtain statistical totals for publication.

If possible, each respondent is interviewed privately to keep unauthorized persons from listening to an interview. Special arrangements can be made if an interpreter is needed. Each question is asked exactly as instructed, in the same order and with the same wording. The interviewers follow the standard procedures for good interviewing and then record the answers on the survey form. If any of the household members 14 years old or older are not present at the time of the initial interview, callbacks to interview the remaining members are made by telephone for the general survey. For the SPA, this was the case for all household members 18 or older.

The initial contact with the household is a personal visit, in which interviews are to be obtained for as many household members 12 years or older as possible. In order to save time and money, however, interviews are allowed to make telephone callbacks to obtain interviews with the remaining eligible household members subsequent to initial personal interviews. The following criteria are used to decide whether or not to telephone:

a. The size of the assignment, since a telephone interview is quicker than a visit in terms of travel time to the sample unit.

b. The distance of the sample household from the interviewer's home.

c. Whether it would be cheaper to telephone or visit the household.

d. A respondent's preference for either the telephone interview or the personal interview.

3. Persons Interviewed

a. Household Respondent:
Questions pertaining to the entire household-including information about household composition- are asked only once. Almost any adult is technically eligible to answer household questions. Such questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member; that is, the one who appears to know--or who could reasonably be expected to know--the answers to the household questions. Most frequently, this is the head of the household or the spouse. If it becomes apparent that the particular household member being interviewed for the household information is unable to answer the questions, a more knowledgeable respondent is found, or arrangements are made to call back when a knowledgeable respondent is available.

b. Self Respondent:
Questions on the basic questionnaire pertaining to individuals are asked as many times as there are household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response; that is, each of these persons provides information about himself.

c. Proxy Respondents:
Information about each household member aged 12 and 13 is obtained by a proxy; that is, the general survey questions for these persons are asked of the household respondent or some other knowledgeable household member.

Proxy interviews are also taken if a particular respondent is physically or mentally unable to answer the individual questions or if a household member 14 or older is temporarily absent and is not expected to return before the enumeration closeout date.

4. Noninterviews

Occasionally, an interview for a sample unit is not obtained and the unit is classified as a noninterview. Reasons for noninterviews include the following:

a. The unit is not occupied.
b. The unit is occupied only by persons not eligible for interview.
c. The unit is occupied by eligible persons, but an interview is not obtained.
d. The unit has been demolished or is no longer used as living quarters.

Household noninterviews are classified into three groups--Types A, B, and C.

a. The Type A noninterviews consist of households occupied by persons eligible for interview, but from whom no interviews are obtained. These noninterviews arise under the following circumstances:

- No one is found at home in spite of repeated visits.
- The entire household is temporarily away during the entire interview period.
- The household refuses to give any information.
- The unit, although occupied, cannot be reached because of impassable roads.
- An interview is not conducted with any household member because of serious illness or death in the family.
- The interviewer is unable to locate the sample unit.

Under most circumstances, Type A noninterviews are considered avoidable noninterviews, and every effort is made to convert them to interviews. Interviewers are trained to explain fully the purposes of the survey to reluctant respondents. If no one is at home, the interviewer leaves a note attempting to have the respondent contact him/her, or calls back at various hours in attempts to find someone in the household at home.

It is considered important to keep Type A noninterviews to a minimum in order to avoid losing information from these households and to maintain a sample representative of the population.

b. The Type B noninterviews result from units which are either unoccupied or which are occupied solely by persons not eligible to be interviewed. These noninterviews arise under the following circumstances:

- The unit is a vacant regular housing unit.
- The unit is vacant and used for storage of household

furniture.
- The unit is temporarily occupied by persons who usually reside elsewhere.
- The unit is unfit for habitation or is to be demolished.
- The unit is under construction, but is not ready to be occupied.
- The unit has been temporarily converted to business or storage.
- The sample address identifies an unoccupied tent or trailer site.
- A building permit has been granted, but construction has not started.

c. Type C noninterviews result from ineligible units for sample.

Reasons for Type C noninterviews are:

- An unused line of the listing sheet; i.e., no address was listed on a line previously designated for the general sample.
- The unit has been demolished by the time of enumeration.
- The house or trailer has moved.
- The unit has been converted to permanent business or is used for storage.
- The unit has merged with another unit.

When a unit is classified as a noninterview, only a few items are filled on the Control Card and a Noninterview Record is filled out.

Occasionally, the interviewer is unable to obtain an interview for a particular household member in an otherwise interviewed household. This person is classified as a Type Z noninterview. For a Type Z noninterview, only a few personal characteristics items are filled on the control card.

The noninterview figures in certain categories for the 6 months of the Survey of Public Participation in the Arts are shown in Table 2.4. To calculate an appropriate response rate, the Type A counts would have to be multiplied by the number of respondents living in those households, which is an unknown.

TABLE 2.4: Non-Interview Rates in Six Months of SPA'85

	Jan	Feb	March	April	May	June
Type A* (households)	3.8%	4.5%	4.0%	4.1%	3.7%	3.9%
Noninterviews						
Type A*	63	60	69	64	55	51
Type Z**	109	126	86	104	103	130
Proxy***	67	63	73	71	72	77
Refusal SPA	78	74	83	68	100	137
Other****	95	67	95	70	75	92
Total	412	390	406	377	405	487
Completed SPA Interviews	2357	2374	2294	2151	2374	2125
Total SPA Cases	2769	2764	2700	2528	2779	2612

* NCS Type A- An occupied sample unit for which no data were obtained because no one was home, the occupants were temporarily away during the entire interview period, the household refused to be interviewed, or another reason such as impassable roads, unable to locate, illness or death in the family. These are given a weight of one in the noninterview tallies.

** NCS Type Z- A household member is a person noninterview in an otherwise interviewed household. (If all persons in a household are not interviewed, the household is a Type A noninterview.)

*** NCS Proxy- NCS interview for an individual obtained by proxy (from household respondent or another knowledgeable household member) because the individual was mentally or physically unable to respond or because the individual was temporarily absent during the interview period.

**** Household members who qualified for an SPA interview but whose SPA record was never processed because it did not match an NCS record or contained missing information.

In general Table 2.4 shows that Type A noninterviews (unoccupied units, general omnibus study refusals, etc.) were scattered fairly evenly across the 6 months (from 3.7% to 4.5%) averaging about 4% of all eligible housing units. Other types of noninterviews averaged closer to 10% for the entire survey and also varied little by month, except for June. The reasons for the higher noninterview and refusal rates for June are not clear, although this was a vacation month, providing people more alternative activities than completing the SPA interview.

5. General Interviewing Sequence

The general interview sequence for omnibus survey is: (1) complete a Control Card on the unit; (2) ask all appropriate personal characteristics and screen questions (including Household Screen Questions) on the Basic Screen Questionnaire of the household respondent; (3) provide detailed reports on certain behavioral incidents mentioned by the household respondent in the Basic Screen Questionnaire; and (4) ask all appropriate personal characteristics and screen questions and complete Incident Reports, if any, for each subsequent eligible household member. An entire general survey interview was completed for each household member before proceeding to the next person. Thus, none of the SPA questions were asked during the general survey interviews to ensure that SPA would not impact on the omnibus survey questions. Instead selected survey respondents were asked the SPA questions following the general questions. The SPA selection procedures and questions, which were designated to take about 20 minutes of interviewing time, are described in the next section.

E) FIELD PROCEDURES AND DATA PROCESSING FOR THE SPA

Once all respondents aged 18 and over had completed the general survey questions, they were read an introductory statement about the purpose of the SPA, its sponsoring agency, and its voluntary confidential nature. The statement also attempted to establish that the survey pertained to the respondent's situation only and not to that of any other members of the household (as was the case for some of the general survey interview questions). The introductory statement for both personal and telephone interviews was as follows.

INTRODUCTION

> We have some questions about your leisure activities. The Bureau of the Census is collecting this information for the National Endowment for the Arts. (Hand respondent the Privacy Act Statement LAS-13. IF PHONE INTERVIEW, END INTRODUCTION.) This explains the legal authority for conducting this survey. It also explains that the survey is voluntary and information provided will be used for statistical purposes only. Your cooperation is extremely important to help ensure the completeness and accuracy of this needed information.

1. Editing

After the field staff has completed data collection and enumeration checks, the questionnaires are sent to the main office for preparation of the data for computer processing. The clerical processing of the survey data consists of two major operations, the clerical edit and the keying of the data to magnetic tape. The main purpose of the clerical edit is to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding in an effort to improve the accuracy and quality of the data. A statistical quality control plan is employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is verified until it is shown that the clerk is capable of performing acceptable work. After that, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate.

2. Data Keying

The data are keyed on a key-to-disk device. For quality control purposes, work units of approximately one hundred questionnaires each are keyed. A statistical quality control plan is employed in order to ensure an acceptable level of quality of keying. Each keyer's work is completely verified.

3. Computer Processing

Upon completion of keying and verification, the data for each work unit are ready for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing is initiated. This processing is divided into four stages. The first is a pre-edit or correction stage in which significant interviewer and clerical errors are detected and corrected. The secondary edit stage checks the data for plausibility and conformity to questionnaire skip patterns. The third stage of table preparation includes all weighting and recoding necessary to produce the final tabulations. The fourth and final stage is the tabulation stage in which the final tables are produced.

F) SPA QUESTIONS AND RATIONALE

The Survey of Public Participation in the Arts (SPA) consists of several series of questions dealing with various aspects of arts participation. These include: the common set of 10 core activity items (shown in Table 2.1) and a rotated series of six different questions dealing with:

1. Participation in 36 other specific leisure activities;
2. Use of mass media for arts participation;
3. Socialization experiences and lessons/classes taken in arts-related activities;
4. Interest in increased levels of participation and perceived "barriers" that prevent fuller participation;
5. Liking of 13 types of music and favorite type of music;
6. Detailed information on the types of places at which the arts participation measured in core questions took place.

These SPA questions had undergone several rounds of pretesting prior to the original January SPA'82 survey.

First, questions had to be developed and refined concerning several new topic areas. There were complicated issues surrounding the phrasing, format and sequence of core activity questions: what time frame to employ (yearly, biannually, monthly, weekly); how to define activities and separate them from each other; how to handle amateur and school productions, etc.

Recommendations from a series of pilot tests conducted by Census Bureau field staff resulted in a draft questionnaire in 1980. These recommendations were then operationalized according to Census Bureau formats and procedures. It was determined from these pilot tests, for example, that the term "modern dance" had little clear meaning to respondents and was apt to lead to much confusion in interpretation.

The SPA was fully pretested in the summer of 1980 with a sample of approximately 200 respondents selected to eliminate the need for callbacks (to addresses where the occupants were not at home, were temporarily absent, or refused to participate). The addresses came from test census tracts for District Heights, Maryland, and for Alexandria and Arlington, Virginia, which were not used in other Census Bureau surveys. To save time and travel costs, all available household members 18 years and older were interviewed during the pretest.

Interviewing teams (of one observer and one interviewer) consisted of Census Bureau interviewers and staff from the Bureau and the sponsoring agencies. Approximately five teams were used, each team receiving approximately 30 addresses. Observation forms were completed for each SPA interview and upon completion of the pretest interviewing, both observers and interviewers were debriefed in a group session. The questionnaires and observation forms were reviewed to detect problems with the interviewer instructions or with the questionnaire. As a result of these pretests, certain modifications were undertaken.

The final pretest interview questionnaire was, in fact, almost identical to the 20 minute questionnaire used in the November and December 1982 surveys. As the survey was about to begin, however, funding constraints resulted in the need for revised field procedures. Funds were available only for five minutes instead of 20 minutes of interviewing per month. Therefore, the questionnaires for each of the first 10 months (January-October, 1982) were subdivided into two parts: (1) two minutes of core questions and (2) approximately three minutes of rotating questions from the remaining 18 minutes of questions in the original questionnaire.

Thus, the SPA first provided measures of participation in, and attendance at, the arts activities measured in core questions (e.g., jazz, opera). Then, depending on the month of the survey, it examined another series of questions involving one of the following: participation in other leisure activities; use of mass media for arts-related activities; socialization experiences; barriers to participation; music preferences; or the types of locations at which the arts attendance took place.

The core participation questions first asked about participation in the previous year, and if this response was positive, then questions were asked about participation in the previous month, and the number of occasions of participation in that month.

Listed below are the more specific data objectives for the various groups of non-core, or rotating, questions administered in the SPA.

1. Life-Style:

These data were intended to put the participation/attendance items in clearer behavioral perspective. To what extent was attendance at arts events more or less prevalent than for other leisure activities, such as sports or hobbies? To what extent do types of activities compete with or supplement each other? What "life-style" patterns were evident in these data and how did these relate to arts participation? The items themselves introduced a wide variety of leisure behaviors that encompassed both indoor and outdoor activities, those done at home rather than away from home, those with minimal artistic connection and those having some connection (e.g., crafts, poetry, music lessons); thus these latter items represented an expanded list of arts-related activities.

2. Mass Media:

These data also extend the arts exposure of the American public to include not only those arts events experienced "live," but also those seen/heard on television, radio and recordings. These data provide insight into several questions: Is more of the public reached by arts through the media or through live events? Do the media reach larger audiences for certain art forms but not others? Are arts performances via certain media likely to stimulate or compete with attendance at live performances? Regarding television in general, are the heavy viewers of this most time-consuming medium more or less likely to attend arts performances?

3. Barriers to Participation:

This was the most ambitious set of questions in the survey and yet the most important for identifying the potential or the "untapped" audiences for the arts. It first asked respondents whether they had attended each of the seven types of arts events as often as they would have liked in the past year. This was asked of both those who had attended in the past year and those who had not. Those respondents who said that they would like to attend more events were then asked about their reasons for not attending more. Their open-ended responses were coded by interviewers into 15 categories. These categories included both "external" reasons (i.e., cost of tickets too high, tickets sold out, transportation or parking problems) and "internal" reasons (i.e., lack of interest, preference for television, or feeling too uncomfortable to attend).

These questions provide not only an examination of what arts performances Americans do attend, but of what they would like to attend if certain internal or external barriers were removed. Might there be a larger audience for events that presently draw small audiences or for those already drawing large audiences? Is there more desire to increase attendance among those who already attend arts performances or among those who presently do not attend? Are those who want to attend more events concentrated in certain demographic segments of the population?

Using these data, it is possible to treat the total U.S. population as being subdivided into four segments:

a) Those who presently attend arts performances and want to attend more;

b) Those who presently attend arts performances but do not want to attend more;

c) Those who do not presently attend performances yet want to attend, but cannot for various (internal and external) reasons; and

d) Those who do not presently attend and also do not want to attend.

These questions also make it possible to see whether attenders and non-attenders who want to attend more (segments a and c) differ in the barriers which they perceive as preventing participation. Are those who do not attend, for example, more likely to say arts performances are not available to them?

4. Socialization into the Arts:

Many Americans receive first-hand exposure to the arts either through taking lessons and classes (e.g., in musical training or music appreciation) or by having their parents take them to arts performances. Such data allow one to examine how many American adults have ever been exposed to these socialization experiences, and whether these experiences are related to current arts participation. Is it the case, for example, that the current audiences at arts performances are largely confined to those people whose parents took them to arts performances or to those who took formal lessons in some art form? Are younger adults more likely to have received this type of exposure than older adults; and does this prior exposure have any relation to different attendance patterns that occur among different age groups?

These socialization questions provide information on classes or lessons for six types of arts and crafts and for both art and music appreciation. These questions also pertain to how often respondents remembered their parents having taken them to arts performances and how much parental encouragement they received for independent reading. Also, respondents were asked about their parents' level of formal education in order to examine whether parental education per se may have had an indirect effect on current arts participation. These questions have obvious relevance to questions now being raised about how to enhance arts education efforts in public and private schools.

5. Music Preferences:

In order to determine more closely the full extent of public interest in certain forms of music (e.g., jazz, opera, musical theatre and classical music), respondents were asked whether they liked to listen to these types of music. In order to put these responses in clearer perspective, respondents were also asked whether or not they liked to listen to several other types of music (e.g., rock, country-western, and easy listening). In order to gauge the intensity of these preferences, respondents were also asked which of these types of music they liked best.

Such questions allow one to observe the extent of overlap between preferences for various forms of music. Are people who like classical music or jazz more or less likely to enjoy country music or rock music? Are there clusterings of different music fans or musical styles, such that people are more likely to "migrate" from one style to another? How do these clusters differ from one demographic segment to another? What proportion of those who say they like a type of music also claim it to be their favorite type of music?

Moving to a slightly different set of questions, how do music preferences relate to attendance at performances of that type of music? What proportion of those who attend jazz or opera performances say that they actually do not like such music? Conversely, of those who like a type of music, how many manage to attend a performance? In other words, how much can be inferred about the numbers of those who actually "like" a form of music from the numbers of those who attend live performances of that music?

6. Location of Arts Performances:

Arts performances take place in several different types of locations. People may attend in private facilities (theatres, nightclubs, etc.) or public facilities (schools, parks, etc.), in religious facilities (churches, YMCA's, etc.) or in arts facilities (concert halls, opera houses, etc.). Therefore, those respondents who had attended any arts performances in the previous year were asked in what types of facilities they had seen these performances. Ten types of facilities were categorized into which the interviewer could code responses to these questions. Responses provide some perspective on the extent to which types of artistic performances take place in private, public, religious, cultural, or other types of facilities. It is also possible to examine those responses for differences in type of facility by the types of arts performances attended, by the different demographic/geographic segments of the population, and so forth.

To summarize certain applications of the data from the six sets of rotating items in the SPA, they are each noted in Table 2.5, according to their applicability to seven different issues or questions that can be addressed.

The various X marks in Table 2.5 are intended to highlight the major issues and questions that can be addressed with each set of questions in the SPA. Two X's indicate that those survey questions are more directly related to a given issue or question. A single X indicates that those questions are indirectly related to an issue or question. The relationships among rotating survey questions and the issues and questions addressed by the SPA are detailed on the following page.

TABLE 2.5: General Issues and Questions Addressed by the Non-Core Rotating Items in SPA'85

	Life-Style	Media	Barriers	Socialization	Music	Location
1. Determine exposure beyond live performances last year	XX	XX		XX		
2. Infer meaning/relevance of attending performances	X	X	XX	X	XX	XX
3. Compare to other audiences and activities	XX	X			XX	
4. Identify potential markets	X	X	XX	X	X	
5. Indicate factors that may determine attendance	XX	XX	XX	XX	XX	X
6. Relate to short-run arts policy questions	XX	XX	XX	XX	X	XX
7. Relate to long-run arts policy questions	X	XX	XX	XX	X	XX

1. Determine Exposure to Arts Beyond Attendance of Live Performances:

What is the number of people (or percent of the population) who watched an arts performance on television, or who attended a poetry reading, or did creative writing or whose parents ever took them to an arts performance? These are the issues mainly addressed by the media, life-style and socialization questions, as is indicated by the double checks in the first row of Table 2.5 for these question areas.

2. Infer the Meaning or Relevance of Attending Performances:

These are the survey questions that provide insights into attendance at arts performances themselves, such as the location at which it took place or the potential audience that might have been reached. The barrier questions also provide information on the reasons people who did not attend gave for non-attendance. Thus, the major questions that perform this function are the location, music and barrier questions. The life-style, media and socialization questions also give indirect information on the meaning of alternative data by comparing these levels to other levels of activities or to levels in other time periods.

3. Compare Arts Audiences to Non-Arts Audiences and Activities:

Here one can contrast arts audiences with other audiences, or contrast the number of participants at arts performances with the number of participants in other leisure activities. One can compare not only the size of these audiences, but their demographic composition as well. The major questions that serve this function are those dealing with life-style and music preferences, which allow researchers to compare the audience for jazz with the audience for rock music, or with the population of movie-goers. The media questions also permit such analysis indirectly by comparing all TV viewers with those viewers who use television for arts content.

4. Identify Potential Markets:

In order to increase the audience reach for the arts, certain aspects of the potential arts audiences need to be identified. The questions that most directly permit such analysis are the barrier questions, which identify reasons why people do not attend more arts performances. The media and life-style questions indirectly perform this function by identifying segments of the audience that are reached by media programs or that are engaged in other types of relevant activities. The socialization and music questions perform the function less directly by providing links to other experiential, attitudinal or psychographic characteristics of the various arts audiences.

5. Indicate Factors That May Determine Attendance:

What factors determine whether or not a person will attend an arts performance? Almost all of the rotating questions on the SPA can be used to address this question. The life-style factors can indicate whether engaging in certain leisure activities stimulates or inhibits attendance at some types of arts performances more than at others. The media questions indicate whether people who watch an arts-related program on television are more or less likely to attend. The question of perceived barriers provides first-hand responses on why people do not attend more arts performances. The socialization responses can address the issues of whether those who have taken lessons, or those whose parents provided contact or encouragement with the arts, are more likely to attend. The music responses indicate how much preference for a type of music predicts attendance at a performance of that type of music. The location data address the issue more indirectly, showing how often different performance settings are used to draw audiences to different arts activities.

6. Relate to Short-Run Arts Policy Questions:

Today there are several specific policy questions being raised about government policy toward the arts. The question of how extensive or valuable various forms of arts education or instruction are addressed by the socialization responses. The questions of whether touring programs are reaching people in areas with fewer live arts events and in less accessible parts of the country are addressed by the barriers and location questions. Insights into how adequately potential audiences for the arts are being reached can be drawn from the music preference and life-style questions. The music questions are also directly relevant to specific program interests within the National Endowment for the Arts, as are specific aspects of media, barriers and socialization questions to programs in theatre and dance.

7. Relate to Long-Run Arts Policy Questions:

The responses on location can be used for examining whether or not an adequate distribution of facilities available for arts performances exists. They can provide guidance in achieving an optimal mix of public and private facilities. The socialization questions can be used to guide decisions about whether present forms of private and public instruction can reach an adequate segment of the public, or whether to encourage parents to provide arts instruction or support for their children. The barriers and media questions provide insight into whether the public is being adequately served or whether the public's arts needs may be met or more efficiently supplemented by supporting arts programs via mass media rather than by directly supporting performing groups. Less directly, the music preference and life-style questions put the issues of the proper ratio of arts to non-arts activity into clearer perspective.

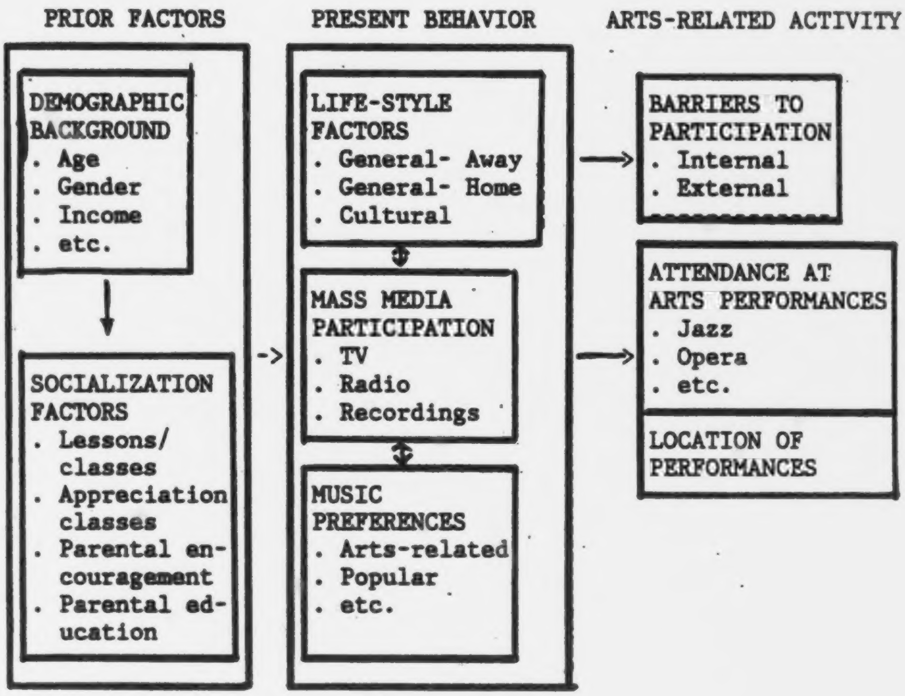
These represent only a few of the possible questions that can be answered with the SPA, and uses to which the data can be put. Thus far we have dealt briefly with the relation of the rotating items to demographic factors and to the core attendance questions. Yet there are many interesting relations that need to be explored among the rotating items themselves. For example, how do socialization patterns relate to music preferences, or to reliance on the media for artistic activities, or to leisure life-style patterns? Do people who are more active in away-from-home activities perceive different barriers to attending arts performances than those people who are less active or spend more time at home or who watch more or less television? Do people who perceive more barriers to arts performances participate in alternative forms of leisure activities?

Thus, the list of possible interrelations is almost limitless. Since the preliminary data have become available, they have been explored to answer several types of policy and theoretical questions. In this report, it is not feasible to examine all possible interconnections. Instead, the analysis has been confined within the limits of the general analysis model outlined in Figure 2.1.

Figure 2.1 first divides the variables--survey questions--into three broad categories. First are those factors that temporarily precede the time period of core attendance, namely the respondent's background (age, sex, etc.) and socialization experiences. The second set of variables can be conceived of as those that provide intervening experiences between the background variables and arts attendance--such as mass media exposure to arts content, leisure life-style patterns, and music preferences. Finally, there are the arts attendance questions themselves, together with the barriers questions that suggest why people do not attend and the location questions that indicate what types of facilities are used for arts performances. The solid arrows indicate the processes examined most closely and the dotted arrows indicate the interrelations examined only occasionally.

It is expected that other researchers will be exploring other models and issues in the near future when the data tapes and manuals are available for secondary analysis, and they will examine those models and processes in closer detail. Like the similar study of recreational participation that the Census Bureau conducted for the National Park Service in 1982 and 1983, and like the SPA'82 survey, data tapes and manuals will be available through the major university archival centers in the United States -- namely the Roper Center at the University of Connecticut and the Institute for Social Research's ICPSR at the University of Michigan.

Figure 2.1: Multivariate Model Showing Major Interrelations Among Variables Investigated in the Report


PRIOR FACTORS
PRESENT BEHAVIOR
ARTS-RELATED ACTIVITY
DEMOGRAPHIC BACKGROUND
. Age
. Gender
. Income
. etc.
SOCIALIZATION FACTORS
. Lessons/ classes
. Appreciation classes
. Parental encouragement
. Parental education
LIFE-STYLE FACTORS
. General- Away
. General- Home
. Cultural
MASS MEDIA PARTICIPATION
. TV
. Radio
. Recordings
MUSIC PREFERENCES
. Arts-related
. Popular
. etc.
BARRIERS TO PARTICIPATION
. Internal
. External
ATTENDANCE AT ARTS PERFORMANCES
. Jazz
. Opera
. etc.
LOCATION OF PERFORMANCES

Additionally, it should be noted that a major factor limiting analysis of these sets of rotating items was the very fact that they were not asked of all respondents. In fact, the full model can only be examined for the nearly 2,700 interviews conducted in the November and December 1982 surveys, which were 20 minutes in length. Otherwise, the schedule of rotation questions (as shown in Table 2.2) limits the degree to which the above questions can be addressed, or the model applied.

Thus, the seven general topic areas in the SPA varied considerably in terms of purpose, segments of the population of interest, and policy considerations addressed. A very detailed set of interview instructions was prepared and sent to interviewers to read prior to conducting their first interview.

In order to ensure that interviewers understood the purpose and intention of each set of questions, an interviewer quiz was prepared for the January 1985 survey.

G) CODING AND DATA ENTRY

After the interviewing and field staff had finished the data collection, the questionnaires were sent to the Census Bureau's main office for clerical checks and to prepare the data for computer processing. The clerical processing of the large survey and SPA data consists of two major operations: the clerical edit and the keying of the data to magnetic tape.

The main functions of the clerical edit are to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding or inconsistencies in order to improve the accuracy and quality of the data. A statistical quality control plan was employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is completed and verified until it is shown that the clerk is capable of performing acceptable work. Subsequently, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate. Keying was verified 100%, with the entire workload rekeyed by another keyer, compared to the original with all keying errors corrected.

With a few exceptions, the questions on the Survey of Public Participation in the Arts were closed-ended questions of the "yes-no" type. Some open-ended follow-up questions were asked (e.g., on reasons for not attending certain types of performances), but responses to these questions were immediately coded by the interviewer; those few responses (less than 500 total) that did not fit into these categories were subsequently coded into existing or new categories at the Census Bureau by Survey Research Center (University of Maryland) coders.

Once these supplemental codings were completed, all forms were sent to the Census Bureau for keypunching and verification. They were then transferred to computer tape with appropriate weighting (see Section V below) and demographic background information for each respondent; the tape was then sent to the University of Maryland for initial tabulations and analyses.

One piece of information not on the University of Maryland tape was the geographic region in which the respondent lived. The reason for this omission was that inclusion of such data could make it possible to provide information on specific respondents in the survey -- a situation which violated the strict rules on respondent confidentiality which the Census Bureau is required to follow as a government data collection agency. Therefore special computer runs had to be conducted at the Census Bureau for variations in responses by geographical factors. Weightings were for age, gender and race categories to ensure each of these groups were represented in their true population proportions.

1. Coding Open-Ended Responses

After the 1985 interviewing was completed and the questionnaires were sent from the field service to the Census Bureau in Suitland, Maryland, personnel from the University of Maryland were sworn in as special employees of the Census Bureau to examine the questionnaires and list open-ended responses in the questions dealing with music preferences, participation barriers, and locations of arts performances. While a few new categories were formed from these open-ended responses (e.g., music of particular ethnic groups), most could be fit into the existing categories. For example, in the music preference question Dixieland music or "fusion" was coded as jazz (category 4). In the barrier questions lack of interest in an art form was coded as lack of motivation (code 14), and lack of money as cost (code 2). In the locations questions, listening to music at a music camp was coded as park or open-air facility (code 10).

The University of Maryland coders also made decisions about ambiguous responses or situations encountered by interviewers in the closed-ended questions (for example, when respondents said they had attended a high school play that included some professional performers, or when they heard a popular musical group that played some classical music or some jazz).

After the twelve months of interviews were coded and rechecked for accuracy, the questionnaires were sent to the Census Bureau's data processing facility in Jeffersonville, Indiana, in the later months of 1985.

2. Data Keying

The coded data were keyed on a key-to-disk device. For quality control purposes, work units of approximately one hundred questionnaires each were keyed. A statistical quality control plan was employed in order to ensure an acceptable level of quality of keying. Initially, each keyer's work was verified completely until it was shown that the keyer was capable of performing acceptable work. All keyed responses were 100% verified.

3. Computer Processing

Upon completion of keying and verification, the data for each work unit were ready to be put on tape for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing was initiated. This processing was divided into four stages:

1) A pre-edit or correction stage in which significant interviewer and clerical errors were detected and corrected;

2) A secondary edit stage, which checked the data for plausibility

and conformity to questionnaire skip patterns;

3) Weighting tape preparation, to show all weighting and recording necessary to produce the final tabulations;

4) Creation of the final tapes.

Once the SPA data were keyed, they were merged with the relevant household data from the larger survey on the demographic factors, except geography, and that tape was sent to the Survey Research Center at the University of Maryland in College Park. Personnel at the Center then:

1) Unblocked the tape to match UNIVAC machine language; and

2) Created an SPSS program to:

   . match the format of the data to SPSS format,
   . write descriptive titles for each variable,
   . designate missing values for each variable, and
   . transform the program into systems files.

Since more than 500 variables were involved, the file had to be divided (archived) to enable the University's SPSS system to process it.

H) WEIGHTING PROCEDURES

The data for each month of the Survey of Public Participation in the Arts have been weighted to reflect the civilian-noninstitutionalized population 18 years old or older. Use of the weights is important because weighted data provide more accurate estimates than the unweighted counts of the population sampled, especially when the modest sample sizes of the SPA are considered.

There is a large variation in the lowest and the highest weights assigned to the sample cases. Therefore, estimates derived from the unweighted data can be significantly different from those derived from the weighted data and could lead to erroneous conclusions.

The cases for the SPA survey are also weighted to the entire U.S. population (civilian and noninstitutionalized) by month*. Thus, each month's

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* The weight assigned to a person in SPA for a single month is equal to the following product:

(BASIC WEIGHT) X (ADJUSTMENT FACTORS WITHIN SPA NONINTERVIEW) X (SECOND-STAGE RATIO ESTIMATION FACTOR)

where the:

1. BASIC WEIGHT OF A PERSON = Final survey weight for the person X 36 (Since SPA is only 1/36 of full sample for the larger survey)

and the:

2. WITHIN SPA NONINTERVIEW ADJUSTMENT FACTOR for the SPA sample persons is computed for persons interviewed in the larger survey who were not interviewed for the SPA.

and the:

3. SECOND-STAGE RATIO ESTIMATION FACTOR is also the same as for the large survey.

SPA data can be used to examine between-month differences in common data items, and for estimation of portions of the data that were only collected for several months.

The weights assigned to the SPA cases are based on several factors. The first of these is the final larger survey person weight. This weight is the reciprocal of the sampling rate of the monthly larger survey population, adjusted for nonresponse, and aligned to population estimates by age, race, and sex. This adjusted weight is then multiplied by the reciprocal of the subsampling rates for the SPA, as applicable, since only part of each month's larger survey sample was used. At this point, the weighting procedure is tailored to the SPA survey.

The SPA person noninterview weights are used to modify the weights in the same manner as with the larger survey. These weights are again adjusted to age, race and sex population controls. Additionally, the same basic procedure is used for the SPA household weight which is derived from the final larger survey household weight. Because the SPA household weight is assigned to all SPA person records for a particular larger survey household, a separate variable must be used in conjunction with the household weight to avoid multiple counting of the household weights.

The use of the SPSS package for the analysis of the SPA data puts a restriction on the use of the assigned weights on the public use tapes. The restriction occurs when printing the output from any SPSS procedure. Since SPSS output only allows nine significant digits, one must first round the weights to the nearest whole number before using the SPSS programs. This rounding occurred immediately following division by the factor for the appropriate number of months, or in place of this division if only one month's data were analyzed.

I) METHODS OF STATISTICAL ANALYSIS

The arts participation data collected in the Survey of Public Participation in the Arts were subjected to several types of statistical analyses. These ranged from simple tabulations to complex multivariate analyses.

Among the techniques employed were:

1. Simple tabulation of the number of responses to each question. How many of the 13,675 respondents in the survey said they attended an opera? Or, of those asked, how many said they liked to listen to jazz -- or had taken music lessons?

2. Simple percentages of respondents giving various responses to each question. What percentage of respondents said they went to an opera or had ever taken a music lesson? Simple tabulations of responses are of limited value without reference to some base figure or denominator. The most common and useful base is the percentage, calculated as the number of respondents going to the opera divided by the total number of respondents. Percentages make it possible to compare responses to questions across groups or across surveys. In the present survey, for example, some questions were asked of all 13,675 respondents, while the rotating items were asked only of about a sixth of all respondents; these responses can be compared only on the basis of percentages.

3. Weighted percentages of responses to each question. What percentages of respondents -- weighted to be representative of the entire population -- went to an opera or took a music lesson? In the present sample, it was not possible to ensure that precise proportions of males, blacks, or elderly people were included. If the proportion of males included was only

44% and the Census Bureau estimates that 48% of the population is male, then the male responses need to be weighted by 48/44 or 1.09 to be sure that males are included in their true proportion. Such weightings were performed on the present sample by attaching a group weight to each respondent in the sample.

4. Sampling errors for responses. All surveys are subject to variability simply because only a sample, and not a population, is interviewed. Because of random fluctuation, it is possible (but not probable if the sample is large) that a sample could contain too many opera-goers or people who like jazz music than is true in the population as a whole. Some error statement needs to be attached to population proportions to reflect this margin of uncertainty. These error factors are calculated using statistical formulas and calculations from the sample itself -- namely by dividing the sample in half at random several times and observing how much proportions vary across these different samplings.

5. Population projections of responses to each question. How many million people in the United States' overall population say they attend operas or enjoy jazz music? This can be calculated (with appropriate sampling errors attached) simply by multiplying the weighted percentages by the adult population figure for the entire U.S., namely the more than 170 million adults who were estimated to be living in this country in 1982. These projections are subject to the same sampling errors noted above.

6. Cross-tabulations (weighted) of arts-related responses with other survey variables. This allows one to see whether respondents who say they have been to an opera are more likely to be male or female, young or old, or more or less likely to attend other types of arts performances. The approach involves a different level of analysis since two variables are being

examined, not just one. In essence, it can be seen that what is involved is a separate set of frequencies or percentages for each demographic group (e.g., one set for males, one set for females). In order to state whether the two variables are related to one another, several options are available: comparison of percentages, depiction of these percentage differences by bar charts or other graphic forms of comparison, or use of summary measures of association or correlation between the two variables (see point 8 below). Cross-tabulation allows the policy maker to locate segments of the population that are high or low in arts attendance, or to see whether groups participating in one arts activity also participate in another.

7. Adjusted cross-tabulations take into account the fact that other variables may affect the two-variable cross-tabulation. This approach allows one to examine whether any differences between men and women, say in attending the opera, are due to other factors that differentiate men and women: age, income, occupation, etc. A descriptive example of a statistical technique that provides such adjusted figures, called Multiple Classification Analysis, is given in Section J of this chapter. The value of these adjusted numbers is that unadjusted numbers give an oversimplified picture of actual situations. It makes limited sense, for example, to talk of general differences between blacks and whites (or men and women) in America, when the two groups differ so widely on socio-economic or age factors. Adjusted figures convey that meaning much more clearly.

8. Measures of association, correlation or "overlap". Measures of association or correlation attempt to convey the strength of a relation between two variables in a cross-tabulation in a single standardized number, ranging between 0 (no association) and 1.0 (perfect association).*

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*These coefficients are given + or - signs depending on whether the two variables both increase or decrease together (positive sign) or go in opposite directions (negative sign). It should be noted that there are several correlation coefficients, each with different assumptions and formulas.

If, for example, 3% of men and 3% of women attended opera, then the correlation between sex and attendance should be 0, or close to 0. If 100% of men and 0% of women attended opera, then the correlation would usually be 1.0 or close to 1.0. Very few associations in survey data come close to 1.0, or even exceed coefficients of .25.

These correlation measures thus offer a useful perspective on the degree of "overlap" between arts attendance variables. In the same way that we examined the overlap between sex and attendance in the above paragraph, we can use these coefficients to gauge the extent of overlap between attendance variables. If 3% of the opera goers go to jazz performances and 3% of the non-opera goers also go, then the overlap between opera and jazz attendance is only what would be expected by chance and so the correlation is zero. On the other hand, if 100% of the opera-goers go to jazz performances and 0% of non-opera goers go, then the overlap is perfect and the correlation is +1.0. If no opera goers go to jazz concerts and 100% of non-opera goers go, then there is no overlap in attendance and the correlation is -1.0.

There are alternatives to the correlation coefficient, based on the "odds ratios" that are coming into increasing statistical usage. These odds ratios are calculated simply by dividing one set of odds by another. If, in the above example, 3% of the men and 3% of the women go to the opera, an odds ratio of 1.0 (3 divided by 3) is obtained; if 1% men and 50% women go, an odds ratio of 50.0 is obtained. Odds ratios are simpler to calculate and understand than correlation coefficients, but they are less familiar and standardized for statistical analysis. They cannot be used with well-developed techniques for clustering large sets of variables (as in this study), such as for the factor analysis method described in the next section.

9. Clustering and factor analysis (multidimensional scaling) of correlation coefficients. Several analytic techniques for making it easier to examine the relationship (clustering) between several sets of variables come under the title multidimensional scaling. If one is examining 10 variables, for example, the number of cross-tabulations involved is 45. That means that an analyst would be required to sort through 45 separate cross-tabulations, comparing and cross-clustering each of them to summarize the results. If the number of variables is 20, the number of cross-tabulations involved is 190; for 40 variables, 780 cross-tabulations are needed. There is no simple or effective way to deal meaningfully with such quantities of data simply by using cross-tabulations.

Perhaps the most widely used technique for reducing large numbers of variables to a minimal number of basic factors, dimensions, or typologies is factor analysis. Factor analysis was developed to generate such basic dimensions using the correlation coefficients as the basic measure of the strength of the relation between variables. A detailed example of how the technique can be employed and the dimensions or clusters it generates is presented in the next section of this chapter.

Factor analysis results can be used in several ways. One can examine graphic plots of the variables in the "space" that is generated and pick out clusters of variables that go together. Or, more traditionally, one can use the factors or dimensions that are suggested to group related variables on that basis. If the factor analysis were, for example, to show opera and classical music on the same factor,and jazz, rock, and big band music on another factor, then one has some justification in creating summary measures (or indices) of two separate music factors -- one for traditional (or enduring) music and one for popular (or more up-tempo, louder, or more current) music.

10. Constructing indices that summarize several related variables. Once one has identified sets of questions or variables that can be related, there are efficiencies to be gained in creating an index to summarize those variables. The simplest method of indexing is to assign one "point" for each variable on the dimension which the respondent gives a positive response. For example, if a respondent says s/he likes rock and big band music, s/he receives a score of two on the index of "popular" music; if another respondent says s/he attended a classical music concert and a ballet, s/he would receive a two on an index of arts attendance. More precise indices could be constructed by using the factor weights for each variable prescribed by the factor analysis or by using the weighting schemes.

The value of indices is that they summarize responses to several questions with a single score. In Chapter 3, for example, we create a single index of arts attendance based on responses to seven separate questions. Instead of having to examine seven different questions, this allows us to examine one score to obtain a clear overall perspective on all facets of attending arts events. For example, what groups in the population or areas of the country are more or less active in arts participation in general? What groups are more or less interested in traditional or popular music?

11. Multiple regression analysis to construct predictive models of participation or of indices of participation. As an overall summary statement of the results of the above procedures, multiple regression answers the question, "What are the most important factors in predicting whether one goes to the opera or likes jazz music?" Or, if one projects a particular age distribution or income distribution in the future, what effect

might that have on opera attendance?

Unlike factor analysis, regression analysis requires the analyst to focus on one particular "dependent" variable, be it arts attendance, media usage, or liking music. It is especially efficient to conduct such regression models with a summary index of some set of variables as the focal point.

In Chapters 5 to 9 for example, index measures of mass media participation and socialization experiences are used to predict an index of arts attendance constructed in Chapter 3. In other words, with regression analysis it becomes possible to reduce an almost unlimited set of possible cross-tabulations to a few summary tables that allow one to gauge, almost in one handy format, whether a particular factor is likely to make much of a difference in arts participation.

J) MULTIPLE CLASSIFICATION ANALYSIS (MCA)

There is a very large number of variables in the Survey of Public Participation in the Arts: the 10 core attendance items (Chapter 3), 26 lifestyle participation items (Chapter 5), 17 media participation items (Chapter 6), 14 socialization items (Chapter 7), seven participation barriers items (Chapter 8), 13 music preference items (Chapter 9) and performance location items (Chapter 4). In addition, there are well over 20 variables related to each respondent's general social and demographic background.

Cross-tabulation is the most straightforward and traditional way of showing the interrelation of such items in a social survey. However, in the case of the 100+ variables in the Survey of Public Participation in the Arts, that would involve over 5,000 of these cross-tabulations -- an extraordinary number both to process and to display. Moreover, it is an inordinate number to comprehend or to put into larger perspective, particularly since many of the variables are closely or subtly tied together, (e.g., attending concerts is related to attending the ballet; education is tied to annual income or geographical area).

To put these data in a clearer and broader perspective, we have employed a statistical technique called Multiple Classification Analysis (MCA), which was developed by Andrews et al.(1973). MCA was developed for efficient analysis of multiple variable data sets like that collected in the SPA. It can show the interrelations among three or more possible variables as effectively as a single cross-tabulation, and it can further show the results of cross-tabulations with related variables at the same time. It can convey the same incisive conclusions as multiple regression analysis or analysis-of-variance (ANOVA) techniques, but in a way that can be easily

TABLE 2.6: Rate of Attendance at Musicals by Education and Race (SPA'82 Data)

a) Education:

		Attend		Not Attend		Total
Grade School	(2,067)	4%		96%	=	100%
Some High School	(2,238)	6		94	=	100
High School	(6,494)	14		86	=	100
Some College	(3,348)	27		73	=	100
College Graduate	(1,795)	37		63	=	100
Graduate School	(1,300)	45		55	=	100
		---		---		
Total Sample*		19%	+	81%	=	100%

b) Race:

		Attend		Not Attend		Total
White	(15,167)	20%		80%	=	100%
Black	(1,673)	10		90	=	100
Other	(403)	13		87	=	100
		---		---		
Total Sample*		19%	+	81%	=	100%

*Total sample responses do not sum to 17,254 due to very small numbers of respondents who failed to answer the education and race items.

comprehended by anyone familiar with the logic of a cross-tabulation.

An Example:

The example provided in Tables 2.6 to 2.8 is intended to illustrate the logic and utility of MCA. The example uses attendance at musicals as the variable to be predicted (called the "dependent" variable), and it examines how well the respondent's education and race (the "independent" variables) can be used to predict such attendance. As shown in Chapter 3 of the 1982 report, some 19% of the 17,254 respondents in SPA'82 reported attending a musical stage play in the previous 12 months. The cross-tabulation of attending musicals by education as given in Table 2.6 shows that such attendance varies widely by that factor: only 4% of those with a grade school education reported attending a musical (i.e., 96% did not attend) and only 6% with some high school education attended. Yet attendance was about nine times as high (45%) at the other end of the education spectrum -- those with graduate school education. In other words, respondents with graduate school education were almost nine times as likely to say they attend musicals (45%) as those with less than a high school diploma (about 6%).

There are also large differences in attending musicals by race, as shown in the bottom (second) cross-tabulation in Table 2.6. Some 20% of all white respondents reported attending musicals in the last 12 months, compared to 10% among blacks and 13% among respondents of other minority racial backgrounds (Asian Americans, Hispanics, etc.). Thus, white attendance exceeded black attendance by 10 percentage points and "other" racial group attendance by 7 percentage points.

TABLE 2.7: Calculation of Education-Adjusted Differences in White and Black Rates of Attendance at Musicals (SPA'82 Data)

		Race							
		Attended Musicals			Differences		% of		Education Adjusted
	Total	White	Black	Other	White-Black		Sample		Differences
Education:									
Grade School	(4%)	4	3	4	+ 1	X	12%	=	.12
Some High School	(6%)	7	3	0	+ 4	X	13%	=	.52
High School	(14%)	14	9	8	+ 5	X	38%	=	1.90
Some College	(27%)	28	19	16	+ 9	X	19%	=	1.71
College Graduate	(37%)	39	29	20	+10	X	10%	=	1.00
Graduate School	(45%)	46	33	22	+13	X	8%	=	1.04
TOTAL	(19%)	20%	10%	13%			100%		6.29

Table 2.6, then, contains two independent cross-tabulations, one for education and one for race. However, the two predictor variables of race and education are not independent of each another. Both blacks and other minority racial groups in the country have less formal education than the white population. That raises the question of how much of the racial differences in attending musicals are, indeed, tied to race and how much these are a by-product of the educational differences that exist between these racial groups.

One way to examine this question is to cross-tabulate attendance at musicals by education separately for each racial group. These separate tabulations are shown in the middle columns of Table 2.7. The first column in parentheses shows the same overall differences by education presented in Table 2.6a. The second column shows these same differences but only for the white respondents in the survey; the third column shows results only for black respondents and the fourth column for respondents of "other" racial backgrounds. Note the percentages at the bottom of each of the last three columns: they equal the 20% white attendance, 10% black attendance and 13% "other" attendance, found in Table 2.6b.

The racial comparisons between columns 2 and 3 of Table 2.7 are now more precise because they contrast whites and blacks with the same educational level. Grade school educated blacks are compared with grade school educated whites and with grade school educated persons in "other" racial groups for each educational level.

As might be expected, the overall racial differences of ten percentage points between whites and blacks is reduced considerably within four categories of education. Some 3% of grade school educated blacks attended musicals compared to 4% of grade school educated whites, a difference of

TABLE 2.8: Rate of Attendance at Musicals by Education and Race, Before and After MCA Adjustment (SPA'82 Data)

	Before Adjustment	After Adjustment
Overall Attendance	19%	19%
Education:		
Grade School	4%	5%
Some High School	6	6
High School	14	14
Some College	27	27
College Graduate	37	38
Graduate School	45	45
Race:		
White	20	20
Black	10	14
Other	13	10

only 1 point, not 10 points. Similarly for high school graduates, the difference is only 5 percentage points, and not 10 points. The racial differences for the six education groups in order are 1, 4, 5, 9, 10 and 13 percentage points. These differences average 6 percentage points after weighting for the different size of each educational group (shown in the second to last column of Table 2.7).

In other words, when we take the step of comparing racial groups with the same educational level, the original 10 point gap between whites and blacks in Table 2.6 reduces to an average of only 6 points. (When calculated the same way, the difference between whites and "other" races increases rather than decreases, with whites averaging 10% higher participation than persons in other racial groups when education is controlled for, compared to the original, unadjusted difference of 7%.)

That is the same analytical logic approach that is employed in Multiple Classification Analysis. While the MCA procedure does not show the inner details of the separate Table 2.7 breakdowns, it does show the same end results -- the 10 percentage point difference (20% white vs. 10% black) in Table 2.6 is reduced to an average of 6 points (20% white vs. 14% black) after controlling for differing educational levels among blacks and whites. Results of an MCA analysis are generally presented in the format appearing in Table 2.8.

The analyses in Table 2.8 represent a very simple application of MCA to only two variables (race and education). However, the world of arts participation and attendance, like other forms of human behavior, involves far more than two or three variables. The unique value of MCA is realized when one uses the technique to separate the effects of not just two but three, five or ten factors that affect participation.

Adding a third independent variable:

Take, for example, the factor of income. Attending musical performances, particularly musicals, can cost 10, 20 or even 50 dollars. Obviously people with higher incomes can find it much easier to afford to attend musicals than less affluent individuals might. How much does income account for the educational or racial differences in Table 2.6? Table 2.9 shows the separate two-way cross-tabulation for income and education, like the Table 2.7 cross-tabulation of race and education.

Table 2.9 shows that there are substantial income group differences in attendance at musicals. These differences by income level are almost as large as the differences by educational level shown in Table 2.6 -- from 4% of grade school graduates to 45% for those who had graduate school education -- from 10% attendance for those with less than $5,000 annual income to 44% among those with $50,000 or more annual income.

But the entries in the body of Table 2.9 show that within separate educational categories, these income differences are not as great as they are overall. For example, in the first row of Table 2.9, we find that only 6% of the grade school educated with $50,000 annual income attend musicals, compared to 4% for all grade school educated respondents. Similarly, only 7% of those in the "some high school/ $25-49,999" category attended musicals, compared to 6% of all respondents with some high school. In fact, the only income group that attends musicals well above average for each educational category is that over $50,000. Increasing income up to this point does not seem to predispose attendance at musicals.

At the same time, the education differences within each column of income categories remain very substantial. That indicates that it is the higher education of those with higher incomes that accounts for the large income differences in Table 2.9, and not something about income itself that predicts attendance at musicals.

The same difference between the predictive power of the income and education factors can be observed more concisely in the income differences shown in Table 2.10. The differences by income level are reduced considerably after MCA adjustment. The differences by educational level are not. As in Table 2.9, education emerges as the most prominent predictor of attending musicals, even after taking both income and racial differences into account.

Graphic Portrayal of MCA Results:

Many of the MCA results, like those in Table 10, have been presented in this report in graphic form. An illustration of these graphics is given in Figure 2.2 to show the relation between attending musicals and education, race and income. The bar chart in the bottom graph, for example, shows the sample (unadjusted) increases in attending these performances by education -- from the 4% attendance rate for those with grade school education to the 6% rate of those with some high school to 14% among high school graduates to 27% of those with some college to 37% of college graduates to 45% of those with graduate school education. That is the increase we find with education before adjustment, as shown by the progressive height of the bars in Figure 2.2c.

However, higher-educated people differ on demographic factors besides their formal education: having generally higher incomes than less educated people and having access to higher paying jobs, for example. College education is also related to race, so one might expect that the increases in musical attendance reflect the smaller likelihood of college educated people being black.

TABLE 2.9: Rate of Attendance at Musicals by Education for Each Income Category (SPA'82 Data)

		Family Income						
	Total	Under $5,000	$5,000-9,999	$10,000-14,999	$15,000-24,999	$25,000-49,999	$50,000 +	$50,000 - $5,000 Difference
Education:								
Grade School	(4%)	1	3	5	7	10	6	5
Some High School	(6%)	4	3	8	7	7	25	21
High School Graduate	(14%)	6	8	12	13	19	26	20
Some College	(27%)	30	22	17	24	30	50	20
College Graduate	(37%)	40	23	34	27	43	49	9
Graduate School	(45%)	37	34	29	41	46	58	21
	-----	--	--	--	--	--	--	--
Total	(19%)	10%	9%	13%	17%	28%	44%	16%

Adjusting the education differences in the bar chart to control for the influence of these other related factors results in the (adjusted) values shown with a dot •, in each bar in Figure 2.2c. These adjusted values reflect what the percentage attending musicals for each group would be if each education group were equivalent in terms of income and race. The • for the grade school educated, for example, is slightly higher (7% - 4% = 4%) than prior to adjustment. That indicates that grade school educated people are still less likely to attend musicals than higher educated people, even taking into account their lower income, or greater likelihood of being black. The figure for those with graduate school education is similarly lower (40% vs. 45%) than it was prior to adjustment.

We have also already noted how the racial differences between blacks and whites decline after adjustment by MCA for other factors. The same is true for the factor of income. Note how relatively flat the distribution of dots is up to the $25,000 income bracket. There is some increase for the $25,000 - $49,999 category to 24% and then a larger climb to 35% for those with over $50,000 reported annual income. But for the majority of the population earning less money, income per se seems unrelated to attendance.

TABLE 2.10: Rate of Attendance at Musicals by Education, Race and Income, Before and After MCA Adjustment (SPA'82 Data)

	Before Adjustment	After Adjustment
Overall Participation Rate	19%	19%
Education:		
Grade School	4%	7
Some High School	6	9
High School	14	14
Some College	27	26
College Graduate	37	34
Graduate School	45	31
Race:		
White	20	20
Black	10	15
Other	13	8
Income:		
Under $5,000	10	16
$5 - 9,999	9	14
$10 - 14,999	13	16
$15 - 24,999	17	17
$25 - 49,999	28	24
$50,000 +	44	35

How MCA is Used in This Report:

The use of MCA in this report is generally for global descriptive purposes rather than for in-depth analysis. That is, we use MCA to identify those factors that remain the most important predictors of arts participation after other factors are taken into account. It is also used to identify factors whose relation to participation may be "suppressed" by other factors, such as when women have lower participation rates because they are older or have less education than men.

The present analysis is intended to identify effective predictors of arts participation, but it will not determine why various results change after adjustment. While it is possible to use MCA to analyze such dynamics, the large number of arts participation variables of interest in the SPA make such an ambitious and time-consuming effort beyond the scope of the present report.

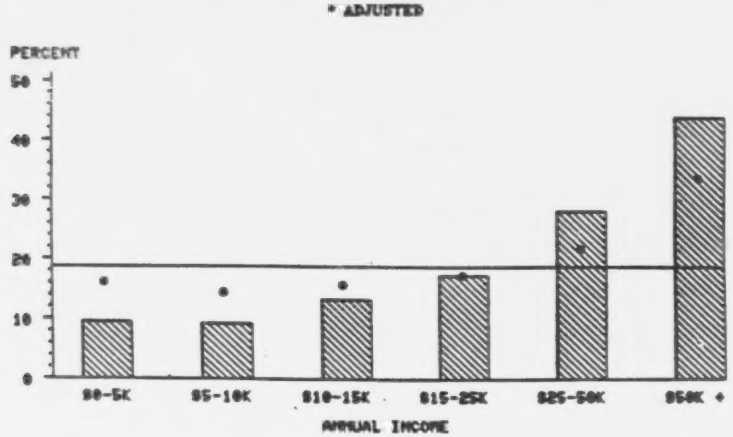
Another technical aspect of the MCA analysis presented in the report concerns the reporting of statistical significance. As of this writing, there is no acceptable, straightforward method of arriving at the complex sampling error figures necessary to conduct tests of statistical significance for MCA results properly. Calculations are provided in the analysis of what the overall significance of particular variables are, but there are two problems with these significance figures:

1) Because the SPA sample sizes involved are large (particularly after the data are weighted to project population estimates), virtually all (or well over 90%) of the variables emerge as statistically significant beyond the .001 level of chance.

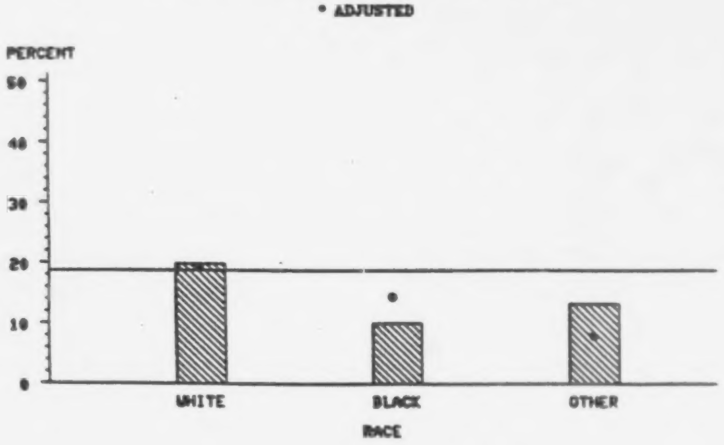
2) These figures refer only to the overall variable and not to particular categories within that variable. For example, we may find that age is a significant predictor, but we do not know if that is because of the differences for the older age category, the younger age category or the middle age category;

Figure 2.2: Graphic Portrayals of MCA Results* (SPA'82 Data Only)

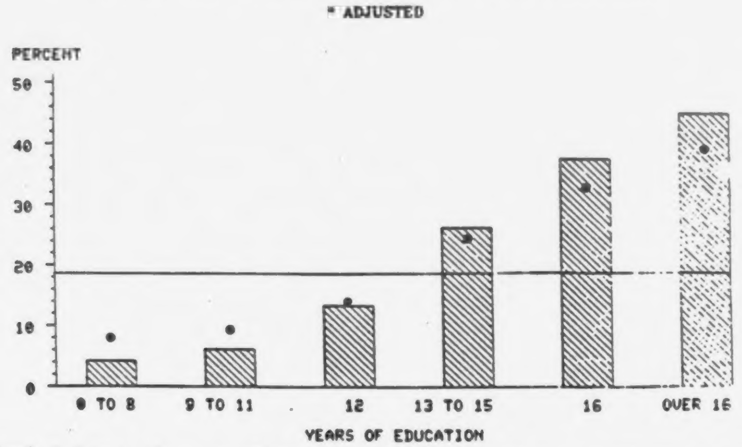
a) ATTEND MUSICALS BY INCOME



b) ATTEND MUSICALS BY RACE



c) ATTEND MUSICALS BY EDUCATION



*Shaded bars show unadjusted results; dots show adjusted results.

> in the case of race, we do not know if it is the white sample, or the black sample or the "other" sample that is significantly different.

Nonetheless, with the MCA results we can identify the specific categories that are high or low before and after adjustment -- and those that are on the same comparative scale. These statistics can be immediately understood by a non-statistician. These are communicable features that are not available on other regression or multivariate analysis programs of which we are aware.

K) FACTOR ANALYSIS (CLUSTERING)

The process of discovering basic dimensions or clusters of variables is accomplished in a very straightforward manner by factor analysis. Factor analysis provides an objective basis by which to construct indices or summary measures. The mathematical foundations of factor analysis are too complicated and technical to be described in this report. The interested reader can find such exposition in several textbooks that have been devoted to the topic (Harman 1967; Kim and Mueller 1978). But the main values and outputs from factor analysis for policy analysis purposes can be described briefly as follows:

Factor analysis basically assumes that each variable exists in a position in a space of many dimensions. From that basis, factor analysis attempts to discover and map the dimensions of that space and where the variables fit in that space according to the available observed data. With no information other than the correlation of each variable with every other variable, and with no indication of what these variables are or how they logically should cluster together, factor analysis programs generate a series of dimensions that seem to best describe the multidimensional space in which these survey variables are located.

For example, assume we had the simple case of four variables related to jazz vs. classical music and listening to that music either on radio or watching it on TV. That leads to four basic variables: 1) watching jazz on TV, 2) listening to jazz on the radio, 3) watching classical music concerts on TV, and 4) listening to classical music on the radio. There are several possible ways these variables could be clustered in reality: by type of music, by type of media, or by some other criteria. Factor analysis can uncover the criteria or dimensions on which they do cluster, given the pattern of correlations that are observed between the four variables.

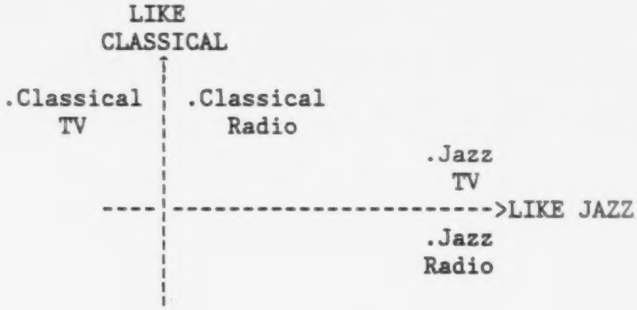
As one example, assume that the music-liking population basically divides itself into those who like jazz and those who like classical music, both of whom follow their favorite forms of music avidly on both radio and television. In other words, there is a strong correlation (overlap) between enjoying jazz programs on television and on radio; and a strong correlation between enjoying classical music on radio and on television. That high correlation means that watching jazz on TV and listening to jazz on the radio are relatively close to each other in the multidimensional space, and watching music performances on TV and listening to classical music on the radio are also relatively close. But neither of these two music clusters is close to each other.

Assume further that people who like jazz don't like classical music and vice-versa. That would lead to the four variables being described in the following single dimension:

```
                    .TV                           .TV
LIKE CLASSICAL       Classical                     Jazz              LIKE JAZZ
 AND <------------------------------------------------------------------> AND
DON'T LIKE JAZZ     .Radio                        .Radio  DON'T LIKE CLASSICAL
                     Classical                     Jazz
```

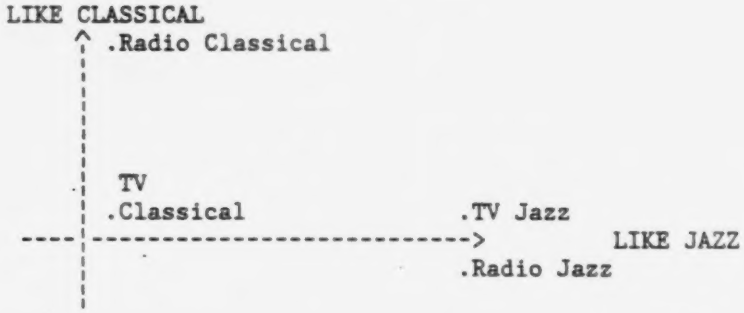
To construct an index to represent this single dimension, one could construct a four-item index with respondents given one point for each response: 1) Watch classical on TV, 2) Listen to classical on radio, 3) Don't watch jazz on TV, 4) Don't listen to jazz on the radio. The more points on the scale, the closer the person is to the left-hand end of the scale (LIKE CLASSICAL AND DON'T LIKE JAZZ); the fewer the points, the more the person is at the right-hand end of the scale (LIKE JAZZ AND DON'T LIKE CLASSICAL). Here, then, only one index or dimension is required to sum up variations in response to these four questions.

But, as a second example, suppose instead that the correlation coefficients show that liking jazz and liking classical music are not polar opposites, but are almost unrelated to one another. In other words, there is no correlation or association between liking jazz and liking classical music. Here the factor analysis is likely to generate a two-dimensional solution that could well take the following form in spatial terms:



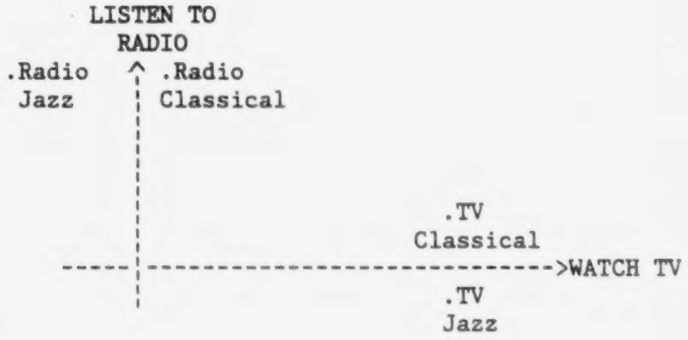
(Here the intersection point is arbitrarily defined to denote the presence of a second dimension.) Such a configuration suggests the need for two dimensions to describe the data, one dimension for classical music and one dimension for jazz. That indicates the need for two indices of two items each, a classical one scored 0, 1, or 2 depending on whether the person watched or listened to no classical music (0), enjoyed classical music either on radio or on TV (1), or on both radio and TV (2). The two item jazz index would be scored in the same way. When there are two dimensions, use of two indices makes more sense.

The same logic applies when there are three dimensions in the data. This would be the case if, for example, listening to jazz on radio and watching jazz on television were related (as above), but that was not true for classical music-- so that listening to classical music on the radio was unrelated both to watching classical music programs on TV and to listening and watching jazz. In that case, we might have:


LIKE CLASSICAL
.Radio Classical
TV
.Classical
.TV Jazz
LIKE JAZZ
.Radio Jazz

where the position of the TV classical variable needs to be visualized as being located on a right angle from the page in a third dimension. Here three indices seem called for: one for jazz (on either radio or TV), one for classical music on TV, and one for classical music on radio.

Thus, as noted above, factor analysis has the ability to discover which of these (or other) patterns best describes the relations between variables. We might well discover that the variables are more organized around the types of mass media than around the types of music as portrayed above. In that case, it would be more appropriate to construct our indices on that basis. If, for example, the factor analysis generated a two-dimensional space like the following:


LISTEN TO
RADIO
.Radio
Jazz
.Radio
Classical
.TV
Classical
WATCH TV
.TV
Jazz

then it would seem that the most logical indices are a two-item measure of TV users and another two-item measure of radio users.

Another possibility is that <u>all four</u> variables cluster <u>together</u> on one dimension, but not apart from each other on that single line as in our first examples. Visually, this would look like:

```
                          .TV  .Radio
                          Jazz  Jazz
-------------------------------------->MEDIA
                     .Radio     .TV  MUSIC
                  Classical  Classical
```

Since all four variables cluster together, this suggests that people's media behavior is organized around one type of music on any type of mass medium. The appropriate index here would be based on four items -- a person answering "yes" to all four questions scoring a four, "yes" to three scoring a three, etc. down to zero.

All these examples should make these five points about factor analysis clear:

1) It generates different dimensions depending on the pattern of correlations that is observed.

2) Interpretation of these resulting dimensions is dependent solely on the investigator's (human) judgement of what it is that leads to the clustering of variables in that space--even though the dimensions are derived by mathematical formulas.

3) Factor analysis depends solely on statistical correlation or association between variables and employs no prior logic about how the variables ought to be related. It has no ideas or assumptions of what association makes sense.

4) It thus attempts to uncover or discover "spaces" rather than to fit any preconceived pattern of how variables ought to be situated in that space.

5) It suggests variables that ought to go together to form indices, but the actual index construction is a separate process.

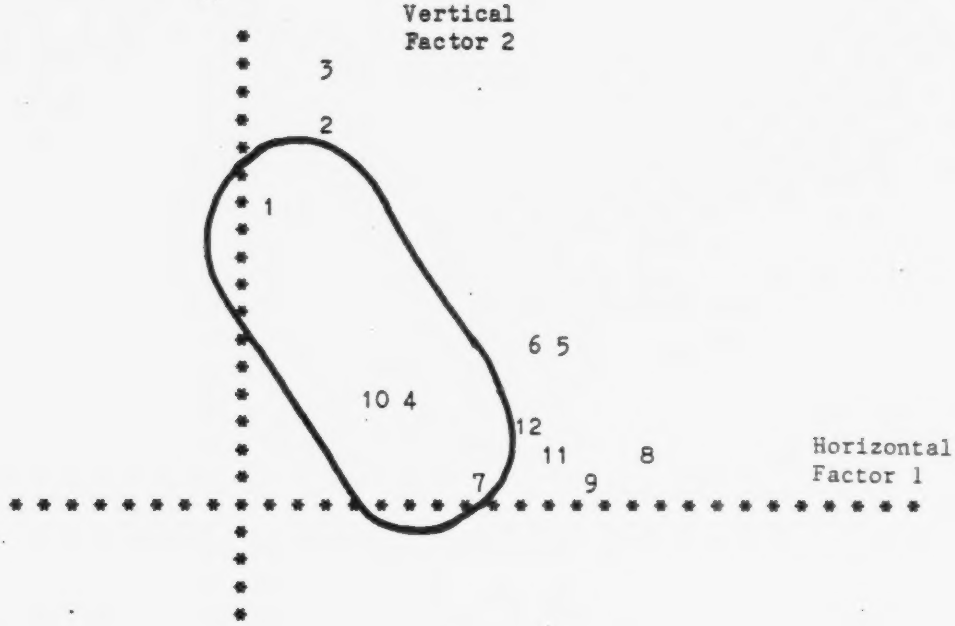
With regard to the latter point, it will be noted that we do not believe in slavishly following the factor analytic results. That is because the factor analysis may well group variables together that make minimal or no analytic sense when lumped together into a single index. For that reason, we have leavened the factor analysis results in chapters 5 to 9 with our own "common sense" indices that summarize variables that should be added together to understand and clarify how the study variables relate to one another.

It might be well to illustrate the complexities and ambiguities inherent in most factor analyses with a specific "real life" example from the present study. In Figure 2.3, we have presented the results of a factor analysis for SPA media variables alluded to in the above illustration. The 12 variables involve three types of mass media (television, radio, and recordings) and four types of music (jazz, classical, opera, and musicals). The basic question for the factor analysis, again, is: Are people's behaviors with regard to music consumption via the mass media more dependent on the music or more dependent on the medium?

The array of points in Figure 2.3 indicates a mixture of both. The main (horizontal) dimension separates certain TV responses (for classical music (4), for opera (7), and for musicals (10)) from their counterparts for radio and record listening (items 5 + 6, 8 + 9, and 11 + 12). That suggests that the medium (TV vs. radio/recording) is the major dimension involved -- but only for these three types of music, and not for jazz.

On the other hand, the second factor shown on the vertical dimension is a music dimension. That dimension clearly separates the (clustered) jazz responses (items 1, 2, and 3) from the responses to the other three types of music (items 4 through 12).

Figure 2.3: Plot of Rotated Factors of Arts Participation via the Media (SPA'82 data)



1=Jazz on TV
3=Jazz on Recording
5=Classical Music on Radio
7=Opera on TV
9=Opera on Recording
11=Musical on Radio

2=Jazz on Radio
4=Classical Music on TV
6=Classical Music on Recording
8=Opera on Radio
10=Musical on TV
12=Musical on Recording

In the same way, the third dimension (which is enclosed and needs to be visualized as coming up straight from the page) once again indicates a medium-oriented factor--since it groups the four items related to watching music programs on TV (items 1, 4, 7, and 10).

Thus, of all the possible ways one might find that these 12 arts/media variables are organized, this factor analysis suggests responses to these questions organize themselves around three dimensions:

1) Radio/recordings of classical music, opera, and operetta/musicals
2) Jazz (on TV, radio and recordings)
3) TV music

Three indices that are thus suggested include a six-item one for radio/recordings, a three-item one for jazz, and a four-item one for TV music.

This does not mean that it would not be worthwhile to create other dimensions, say for classical music, for listening to music on radio, or for all 12 items together. It suggests that the three dimensions on Figure 2.3 are based on the strength of more statistical or empirical association between them.

L) INDEX CONSTRUCTION

There are two major reasons for attempting to analyze survey data by index construction: to increase reliability and to increase efficiency.

Reliability is increased because one does not have to depend on individual responses to a single item. On any given item, respondents may misinterpret the question, be misled by a single word, or give an incorrect answer in any number of ways. Having responses to additional questions, which have varied wording and varied perspectives allows the researcher to be more sure that respondents are, for example, more active in the arts, or more active users of mass media for arts-related activities.

Efficiency is increased because instead of analyzing 5, 10, or 20 items separately and encountering the possibility of numerous idiosyncracies in each, one can lump these items together in a single variable. As we have seen, factor analysis is a very useful tool for identifying 1) which items to put into an index, and 2) how many indices to create.

In order to keep the analyses in this report at the least complicated and most understandable level, we have used a very simple method of constructing indices once they have been defined. That method is to assign a single point to be given for each appropriate response in that index (e.g., one point for each arts activity, or one point for each type of mass media employed). While more sophisticated index construction schemes can be devised, this one has the value of maximum simplicity, interpretation and comprehensibility.

In examining index analyses in this report, it is also important to note that the construction of such indices does not imply that the activities and preferences within them are equivalent or interchangeable elements of experience. While the indices group these elements for a broader examination of the survey data, the relative influence of each variable incorporated in an index is also analyzed in the chapters to follow. Finally, while other index groupings of questions are certainly possible and meaningful, the indices used in this report follow the groupings of questions used in the questionnaire and in the individual chapters which constitute this report.

Chapter 3

ARTS PARTICIPATION

The SPA'85 began with a series of "core" questions designed to describe participation in eight main arts-related activities in the United States. These core questions were asked of all respondents in the survey and measured their participation in the arts during the previous twelve months. "Participation" included being either in the audience for some live arts performance or a performer in a live arts event. Participation also included reading certain types of literature, such as novels, short stories, poems or plays. The core arts participation questions in this study, then, included attending live performances or art displays, reading certain forms of literature, and performing in a public arts event.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for all six months of the survey. The analysis in this chapter transforms these responses into several formats for analysis and consideration:

1) Estimates of the participation rate and the number of participants for various art forms--these estimates indicate the relative amount of public activity in each of the arts activities. For instance, how many Americans attend opera or attend ballet? What proportion of Americans performed in a live public arts event, or read novels, short stories, poetry or plays?

2) Differential participation rates within several demographic groups--this analysis examines differences in participation among people with different backgrounds and major predictive variables for each arts activity (e.g., Are blacks more likely than whites to attend jazz performances).

3) Differential participation by each demographic

group when the associated influences of other demographic variables are controlled statistically--this analysis suggests the reasons why differences occur among sub-groups within a demographic variable. For example, are the differential participation rates among whites and blacks attributable to other factors associated with race, such as education and income? Is it the higher educational level of whites that accounts for their greater arts participation?

4) The extent of overlapping audiences of art forms indicated by correlations between pairs of arts activities--these correlations show which art forms have more "overlap" across audiences. Are people who attend jazz performances, for example, more likely to read literature or to attend musicals as well?

5) An index of overall cultural participation in these art forms by demographic groups--this analysis allows prediction of a broader spectrum of participation based on background factors. For example, do blacks or whites tend to participate in a greater number of types of arts activities?

A) CORE QUESTIONS AND RESPONSES

The core questions ask about attendance at seven types of live performances or art displays:

- jazz
- classical music
- opera
- musicals or operettas
- non-musical plays
- ballet
- art museums and galleries

Questions 8 and 9 ask whether the respondents themselves had performed in (or rehearsed for) such public performances, by playing a musical instrument, acting, singing, or dancing. The final core question, Question 10, asks about reading novels, short stories, poetry, or plays. All ten questions ask about participation in the last 12 months. Table 3.1 shows the exact wording and format of the core questions, and the number of SPA'85

TABLE 3.1: Distribution of Responses to Core Participation Questions (N=13,675)

1. The following questions are about YOUR activities during the LAST 12 months — — between ________ 1, 19 ___, and ________ ___, 19 ___.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0	☐ No	12,360	

Yes — How many times did you do this LAST MONTH — — between ________ 1, and ________ ___, 19 ___ ?

1	☐ None	930	
2	☐ One	261	
3	☐ 2–3	87	
4	☐ 4–5	11	
5	☐ 6 or more	5	NA=21

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0	☐ No	11,854	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	1228	
2	☐ One	421	
3	☐ 2–3	134	
4	☐ 4–5	22	
5	☐ 6 or more	10	NA=6

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0	☐ No	13,278	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	310	
2	☐ One	57	
3	☐ 2–3	7	
4	☐ 4–5	0	
5	☐ 6 or more	2	NA=21

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0	☐ No	11,272	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	1755	
2	☐ One	508	
3	☐ 2–3	113	
4	☐ 4–5	6	
5	☐ 6 or more	12	NA=9

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0	☐ No	12,003	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	1242	
2	☐ One	322	
3	☐ 2–3	74	
4	☐ 4–5	13	
5	☐ 6 or more	6	NA=15

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0	☐ No	13,058	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	466	
2	☐ One	124	
3	☐ 2–3	22	
4	☐ 4–5	1	
5	☐ 6 or more	1	NA=3

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0	☐ No	10,566	

Yes — How many times did you do this LAST MONTH ?

1	☐ None	2116	
2	☐ One	662	
3	☐ 2–3	248	
4	☐ 4–5	38	
5	☐ 6 or more	38	NA=7

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0	☐ No – *Skip to 9a*	13,289	
1	☐ Yes	386	

8b. Did you play any classical music?

0	☐ No	262	
1	☐ Yes	120	

8c. Did you play any jazz?

0	☐ No	284	
1	☐ Yes	88	

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0	☐ No – *Skip to 10*	13,101	
1	☐ Yes	574	

9b. Did you act in a non-musical role?

0	☐ No	442	
1	☐ Yes	114	NA=6

9c. Did you sing in a musical play or operetta?

0	☐ No	438	
1	☐ Yes	122	

9d. Did you sing in an opera?

0	☐ No	552	
1	☐ Yes	4	

9e. Did you dance in a ballet performance?

0	☐ No	538	
1	☐ Yes	17	NA=48

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0	☐ No	5875	
1	☐ Yes	7765	NA=36

FORM LAS 7 (8 9 82)

respondents falling into each response category.

As Table 3.1 shows, if respondents answered "yes" to the initial questions on participation, follow-up questions were asked about the number of times they had participated during the previous month. For the next two questions on performing and rehearsing, those who reported participating in the last 12 months were asked only about their type of performance or rehearsal activities during that 12-month period. Thus, while the time frame for follow-up questions to the first seven questions is the previous month, the time frame for the follow-up questions to Questions 8 and 9 is the previous year.

Responses for each of the core questions in Table 3.1 show the number of respondents falling into each response category. For instance, responses to Question 1 on attendance of jazz performances indicate that of the total 13,675 respondents, 12,360 said they had not attended a live jazz performance during the previous year. The remaining 1,315 respondents fall into two categories: the 1,294 (the sum of all respondents reporting some attendance for the previous month or 930 + 261 + 87 + 11 + 5) who reported going to a jazz performance in the last 12 months and the 21 respondents who did not give a codeable response. The first set of numbers is a breakdown of the number of respondents who reported different frequencies of attendance for the last month. For example, of the 1,294 who had attended a jazz performance in the last year, 930 said they had not attended a jazz performance in the previous month, while 365 had. Of those, 261 had attended once in the previous month, 87 two or three times, 11 four or five times and 5 six or more times. The responses to questions 2 through 7 follow the same format as Question 1.

The exact wording of the questions in Table 3.1 provides further details about the survey's operational definition of arts participation. The survey's definition of attendance at musical and non-musical stage plays, for example, excludes grade school and high school productions. While the raw tabulations in Table 3.1 suggest certain differences across activities, substantive conclusions from the Table 3.1 data require further analysis involving weighting, percentaging, and other statistical manipulations of these data.

B) POPULATION ESTIMATES OF ARTS PARTICIPATION

An important feature of this national sample is its ability to provide estimates of the extent of public participation in each type of arts activity. Since a certain amount of sampling error can be expected in even the most rigorously developed sample, certain groups may not have been included in their true proportions in the population. The raw data shown in Table 3.2a are thus weighted by gender, age, and race in order to make projections to the entire U.S. adult population -- the 170.6 million of these adults 18 years old or older. If, for example, the proportion of white males aged 18-29 in a particular sample category were only half as large as the national proportion indicated in Census Bureau figures, data from such respondents in the sample would have been given a weight of two. If it were three times as large, then a weight of one-third would be applied, and so forth. See Chapter 2 for more details about weighting. When such weighting procedures were applied to the data in Table 3.1, the results are as shown in Table 3.2a.

Thus, the weighted data indicate that about 22% of the American public say they visited an art museum or gallery in the last 12 months. This percentage translates into about 37.4 million visitors at such art displays in the country as a whole. Note that these population and percentage estimates should not be read with a false sense of precision because a small percentage of error can equal a large number of people. The final column in Table 3.2a indicates this +/- 0.7% margin of error in the estimate of attenders of art museums, or more than one million persons at the 95% confidence level. In confidence interval terms, this means that we can be 95% confident that the proportion of people estimating that they went to an art

TABLE 3.2a: Weighted Participation Rate Estimates for Arts Activities During the Past Year

	Percentage Participating	Estimated U.S. Population*	95% Confidence Range**
Reading	55.8%	95.2 million	93.3-96.2 million
Art Museums	21.9	37.4 million	36.2-38.6 million
Musicals	16.6	28.2 million	26.6-29.8 million
Classical Music	12.7	21.7 million	20.5-22.8 million
Plays	11.6	19.7 million	18.5-20.9 million
Jazz	9.5	16.2 million	15.0-17.5 million
Ballet	4.3	7.3 million	6.8- 7.8 million
Opera	2.6	4.5 million	4.0- 5.0 million

* Percentage x 170.6 million.

** The confidence range is at 95% level and takes design effects into account if greater than 1.00.

museum in the last year was between 36.2 and 38.6 million adults.

The range of attendance estimates across the activities in Table 3.2a is broad, spanning approximately 5 million for opera to 37 million for art museums. Attendance at musicals is estimated to be in the range of about 28 million; attendance at classical music, plays, and jazz performances fall into an intermediate range of 16 to 22 million; attendance at ballet and opera occupy a relatively low range of 5 to 7 million. In comparison, the reading of novels, short stories, poetry, and plays is the only type of arts participation in which over half of the population was involved during the previous year. About 95 million Americans, according to the SPA'85 estimate, read such literature in the prior year, with a 95% confidence interval of between 93.3 million and 96.2 million.

Table 3.2b presents parallel figures for performing or rehearsing for a public performance during the past year. The estimates are again weighted to correct for any disproportionate representation of certain groups in the sample. The estimates for performance or rehearsal for a public performance tend to fall into the same order of arts-related activities as the attendance data. Playing classical music, singing in a musical play, and acting in a non-musical play are all in the high range (representing nearly 1.4 million adults). Playing jazz is in a somewhat lower range (of about 1.2 million adults) and dancing in a ballet and singing in an opera are in a much lower range, with opera still in the tens of thousands. The confidence intervals here are relatively larger, as can be seen in the final column of Table 3.2b. For opera and ballet, the high and low interval points differ by a factor of three (e.g., from 30,000 to 100,000 people for opera) and are greater than a one-and-a-half to one ratio for the other four participation activities as well.

TABLE 3.2b: Weighted Population Estimates for Appearing in Public Arts-Related Performances

	Previous Year	Estimated U.S. Population*	Confidence Range**
Classical Music	.85%	1.4 million	1.1-1.7 million
Musicals	.83	1.4 million	1.1-1.7 million
Plays	.81	1.4 million	1.1-1.7 million
Jazz	.68	1.2 million	.9-1.4 million
Ballet	.12	.2 million	.1- .3 million
Opera	.04	.06 million	.03- .1 million

* Percentage x 171 million.
** The confidence range is at the 95% level and takes design effects into account.

TABLE 3.2c: Ratio of Performers to Attendees Based on Population Estimates (in millions)

	Musicals	Classical Music	Plays	Jazz	Ballet	Opera
Performers	1.4	1.5	1.4	1.2	.2	.6
Attendees	28.2	21.7	19.7	16.2	7.3	4.5
Ratio of Performers to Attendees	.05	.07	.07	.07	.03	.01

When art forms are rank ordered by the number of people attending performances and by the number of people performing in them, they show almost the same ordering. This relationship is shown in Table 3.2c, which presents both sets of estimates for six art forms arrayed from left to right from highest to lowest number in terms of attenders. In terms of this performance ratio, the four most attended types of performances also have the highest ratios of performers to attenders, with about one performer to 15 to 20 attenders. For opera and ballet, however, the ratios are one performer to 30 to 100 attenders. Compared to the other art forms, then, opera and ballet are more likely to attract audience members with no personal experience as public performers of those art forms.

C) ARTS PARTICIPATION AND BACKGROUND FACTORS

The 1982 survey of arts participation allows examination of arts participation by a variety of measured background variables. The larger omnibus survey included questions on the following background variables:

1. Geography
    a. Urban area
    b. Rural area
    c. Population Size of Place
    d. Standard Metropolitan Statistical Areas (SMSA)
    e. State
    f. County

2. Demography
    a. Race
    b. National Origin
    c. Age
    d. Marital Status
    e. Relationship in Household
    f. Gender
    g. Education
    h. Household Income
    i. Number of Children

3. Housing
    a. Type of Unit
    b. Access to Automobile
    c. Kitchen Facilities
    d. Access to telephone
    e. Number of Units in structure
    f. Year Built
    g. Tenure of Living Quarters
    h. Length of Time at Address
    i. Number of Moves in the Last Five Years

4. Occupation and Employment
    a. Employment Status
    b. Reason for Unemployment
    c. Extent of Job Search Efforts
    d. Occupation
    e. Type of Employing Organization

The analyses in this chapter, however, are limited to 11 background variables (in this list and in figures that follow): age, gender, race, education, income, SMSA, region, marital status, work hours, occupation, and number of children. These variables were selected to represent the most salient dimensions of geography, demography, and occupation. Variables related to housing and to other ecological factors are examined in Chapter 4.

In the following analyses of background variables and their impact on arts participation, it is important to distinguish between the usefulness of these variables in predicting participation, and their usefulness in explaining that same participation. An understanding of that distinction will help readers decide whether to devote more of their attention to the unadjusted data or the adjusted data, depending on needs and interests.

If a factor is a useful predictor of arts participation, then it efficiently characterizes groups of people who are more likely to participate than other groups. At face value, this knowledge serves to predict attendance, although the factor cannot be said to explain or cause the different rates of participation, and might only succeed as a predictor because of its association with other related factors which have a more direct or stronger influence on participation behavior. For readers interested in efficient prediction of arts participation, without examining the underlying and perhaps more complex relationship between background factors and participation, the unadjusted statistics in this chapter will provide the needed information. These figures can be found in Table 3.3 for the core arts questions.

However, for those readers interested in explaining why participation differs across groups of people with different background characteristics, it is necessary to analyze the web of influences on arts participation and to identify factors with the greatest explanatory power. The adjusted statistics in this chapter, which separate out a given background factor's explanatory power from all other factors studied, will be more informative

TABLE 3.3: Participation Rates for Various Arts Activities by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean:	10%	13%	3%	17%	12%	4%	22%	56%
Age:								
18-24	14	11	2	15	11	4	22	57
25-34	15	12	2	16	12	5	26	59
35-44	10	16	4	21	14	6	27	62
45-54	8	15	4	20	13	3	22	57
55-64	5	11	3	18	10	4	19	50
65-74	3	13	3	13	10	4	16	50
75-96	1	10	1	8	7	2	10	48
Sex:								
Male	10	11	2	15	11	3	21	48
Female	9	14	3	19	12	5	23	63
Race:								
White	9	14	3	18	12	5	23	58
Black	13	6	1	9	6	2	11	44
Other	8	15	4	13	8	5	24	50
Education:								
Grade school	1	3	1	3	1	1	4	23
Some high school	3	3	1	6	4	1	7	37
High school graduate	7	7	1	12	6	2	14	52
Some college	13	15	3	21	15	6	30	72
College graduate	18	29	6	34	26	9	45	78
Graduate school	24	41	11	40	36	15	56	80
Income:								
Under $5,000	8	9	2	10	8	3	16	44
$5,000 - $9,999	7	7	1	8	4	2	12	43
$10,000 - $14,999	6	8	1	11	8	3	15	50
$15,000 - $24,999	8	11	2	12	9	4	19	53
$25,000 - $49,999	11	15	3	22	14	5	28	63
$50,000 and over	19	30	8	37	28	11	45	77
Not ascertained	9	12	2	17	11	3	19	56
SMSA:								
Cent city of SMSA	13	14	4	18	13	5	25	57
SMSA, not cent city	10	15	3	21	14	5	26	61
Not in SMSA	6	9	2	10	7	3	14	49
Region:								
Northeast	8	13	4	20	14	5	21	57
Northcentral	10	15	1	17	11	4	21	55
South	9	10	2	13	10	4	19	51
West	12	15	4	19	13	5	30	66
Marital Status:								
Married	8	12	2	17	11	4	21	56
Widowed	3	10	2	12	9	4	13	49
Divorced	12	14	3	16	14	4	24	57
Separated	13	11	3	14	11	5	20	55
Never married	17	16	3	19	14	6	27	57
Work Hours:								
None	7	11	2	14	10	4	19	54
1 to 29	12	17	3	20	15	6	27	64
30 to 39	10	14	3	17	13	5	22	60
40 hrs	11	11	3	17	11	4	21	56
41 to 49	12	14	3	18	14	5	26	53
50 or more	24	17	4	21	16	5	28	55
Occupation:								
Professional	19	29	7	32	26	11	45	75
Managerial	16	22	6	31	22	7	38	71
Sales, clerical	12	13	3	22	14	5	26	66
Craftsman	8	6	1	8	5	2	14	42
Operatives	6	4	1	8	4	1	9	35
Laborers	7	4	1	6	5	1	8	34
Service workers	10	8	1	12	8	3	15	54
Not working	9	11	2	11	7	3	19	49
Keeping house	4	11	2	13	9	3	17	55
Student	15	19	4	23	18	8	34	75
Retired	3	11	3	12	6	2	14	96
Presence of children:								
No children	10	14	3	18	13	4	23	56
One 6-11	7	11	3	17	10	5	21	57
Two+ 6-11	8	15	2	19	12	7	22	61
One under 6	10	9	1	13	8	2	18	53
One 6-11, One under 6	12	9	2	13	8	4	17	58
One under 6, Two+ 6-11	6	10	0	11	6	3	24	57
Two+ under 6	7	9	2	13	9	5	20	54
One 6-11, Two+ under 6	7	11	2	11	11	6	19	54
Two+ 6-11, Two+ under 6	4	10	0	11	2	5	14	41

to readers attempting to explain the origin of arts participation behavior. Such figures can be found in Table 3.4.

The following analyses of background factors are organized into two parts. The first part examines each of 11 demographic factors to see how they relate to and/or predict participation rates across the eight core arts activity questions. The second part examines each of these eight arts activities to see which background factors explain attendance within each arts activity, after the other factors are held constant.

Across different arts activities, some background factors are generally useful predictors of participation. These patterns can be seen by reading across rows of Tables 3.3 and 3.4, which present respectively the unadjusted and adjusted figures for participation rates by background factors. (Discussion of the adjusted "explanatory" figures is given after first identifying the main unadjusted predictor variables.) The general relation of each of the eleven background factors on participation in various arts activities is summarized below.

TABLE 3.4: MCA-Adjusted Participation Rates for Various Arts Activities by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Arts Museums	Reading
Grand mean:	10%	13%	3%	17%	12%	4%	22%	56%
Age:								
18-24	13	11	2	16	11	4	23	56
25-34	15	10	2	15	11	4	25	57
35-44	9	14	3	18	13	5	24	58
45-54	7	14	3	18	12	3	21	56
55-64	5	13	3	19	11	5	20	53
65-74	5	17	4	18	13	5	20	57
75-96	3	13	2	13	10	3	13	56
Sex:								
Male	9	10	2	13	10	2	20	48
Female	10	15	3	20	13	6	24	63
Race:								
White	9	13	3	17	12	5	23	57
Black	13	10	2	12	9	3	14	49
Other	7	14	4	11	7	5	20	48
Education:								
Grade school	5	3	1	7	4	2	8	26
Some high school	5	4	1	9	5	1	9	39
High school graduate	7	7	1	13	7	2	15	53
Some college	11	15	3	20	14	5	28	70
College graduate	16	28	6	30	24	9	41	75
Graduate school	21	38	9	34	32	14	50	77
Income:								
Under $5,000	9	11	3	15	11	3	22	52
$5,000 - $9,999	10	10	2	13	8	3	19	52
$10,000 - $14,999	8	11	2	14	11	4	19	55
$15,000 - $24,999	9	12	2	13	10	5	21	54
$25,000 - $49,999	10	13	2	19	12	4	24	59
$50,000 and over	15	20	6	27	20	8	31	64
Not ascertained	9	11	2	17	11	3	19	56
SMSA:								
Cent city of SMSA	12	14	4	19	13	6	26	58
SMSA, not cent city	9	13	2	19	12	4	23	57
Not in SMSA	8	11	2	12	9	4	17	53
Region:								
Northeast	9	13	3	19	14	5	20	56
Northcentral	10	14	1	16	11	4	20	55
South	9	11	3	14	11	4	21	53
West	11	12	4	17	11	5	28	63
Marital Status:								
Married	9	12	2	16	11	4	22	56
Widowed	10	13	2	17	13	6	22	57
Divorced	12	14	3	16	14	4	24	56
Separated	12	15	3	17	13	6	24	60
Never married	11	15	3	18	13	5	22	55
Work Hours:								
None	11	12	3	17	13	5	25	59
1 to 29	9	16	2	18	12	5	24	59
30 to 39	8	13	2	15	10	4	19	54
40 hrs	8	11	2	16	9	4	18	54
41 to 49	9	13	2	16	11	5	22	50
50 or more	11	14	3	17	11	4	21	51
Occupation:								
Professional	13	15	4	20	16	6	29	60
Managerial	11	13	4	22	15	5	26	62
Sales, clerical	10	12	3	18	13	4	23	60
Craftsman	10	12	3	13	11	4	21	53
Operatives	9	10	2	14	10	3	17	48
Laborers	8	12	3	17	10	5	20	48
Service workers	11	11	3	15	11	4	20	57
Not working	9	14	3	16	8	5	23	55
Keeping house	7	13	2	15	9	3	19	53
Student	7	17	4	20	13	6	25	64
Retired	8	14	3	18	10	4	20	56
Presence of Children:								
No children	11	13	3	18	13	4	24	57
One 6 - 11	6	11	3	15	9	4	19	55
Two+ 6 - 11	6	15	2	18	11	6	19	57
One under 6	6	10	1	13	8	2	15	50
One 6 - 11, One under 6	9	12	3	15	9	5	16	57
One under 6, Two+ 6 - 11	6	13	1	14	8	5	24	58
Two+ under 6	3	10	2	14	9	7	15	51
One 6 - 11, Two+ under 6	4	14	3	19	12	8	18	56
Two+ 6 - 11, Two+ under 6	5	18	2	14	7	2	21	52

D) BACKGROUND VARIABLES: DIFFERENCES IN PARTICIPATION RATES BEFORE ADJUSTMENT

For any of these background factors, an indicator of its predictive usefulness is the range of variation--the difference between the highest and lowest participation rates of individuals who differ in this background characteristic. When this range is large, the factor can be used to predict greater differences in the likelihood of arts participation. Conversely, when the range is small, the factor is less useful in distinguishing attenders and non-attenders. (The range of variation across the arts activities can be gauged in Tables 3.3 and 3.4 by subtracting the maximum and minimum participation rates for each background factor and then comparing the variations down the columns of arts activities.)

Although the most important factors associated with participation are not the same across arts activities, some general trends can be discerned. Generally, education, occupation, and income tend to be the three best predictors.

Age

Arts participation generally declines among the older segments of the population, but the watershed point for this decline varies across activities. Opera attendance has the oldest peak point (35-54 years), with the peak point for attendance of classical music, musicals, plays, ballet, art museums and reading in the next younger group (35-44 years). Jazz attendance has the youngest peak group (25-34) and the attendance rate for those 18-24 is higher than for any other core activity here as well. Thus, the audiences of the various arts activities are drawn in varying degrees from different age groups, although least likely from the oldest groups in the population.

Gender

Women have a higher participation rate than men for all but one of these eight arts activities: attending live performances of classical music, opera, musical and non-musical plays, and ballet; visiting art museums or galleries; and reading literature. The one exception is for attending jazz performances--men are slightly more likely tha women to attend jazz performances.

Race

The most common pattern by race is for whites and "other" races (mainly Asian-Americans) to have the highest participation rates, with blacks having lower than average rates. However, jazz attendance is the one type of live performance for which the rate of black attendance is the highest (or above the national average); whites and "other" races have roughly equal rates of attending jazz performances. Those of "other" races attend classical music, opera performances and art museums at higher levels than do whites.

Education

For each arts activity, participation rates increase markedly with each educational level.

Income

Household income is generally positively related to arts attendance and to reading literature. The main exception is that for reading literature, and for attending all live performances (jazz, classical music, opera, musicals, plays, and ballet) those earning below $5,000 are a little more likely to attend than are those earning $5,000-$9,999. This is probably due to the large number of college students in this category.

Standard Metropolitan Statistical Area (SMSA)

The typical pattern in this case is for residents of central cities within SMSA's and (mainly suburban) residents of SMSA's outside of central cities to have the highest rates, and for those outside of SMSA's to have the lowest rates. For jazz and opera, the participation rates of those living within the city limits are higher than in the suburbs, while for classical music, plays, musicals, reading and art museums suburban residents report higher participation.

Region

People residing in the South have the lowest participation rates for all of the arts activities, while those living in the West typically have the highest participation rates. Participation rates also tend to be higher than average in the Northeast. The participation rates for those in the Northcentral area tend to be intermediate relative to the other regions, but relatively high for jazz and classical music performances.

Marital Status

The divorced and never married are more likely than average to attend any of the arts events and to read literature. Married, widowed, and separated respondents attend and read at less than average rates. Two exceptions include separated individuals attending jazz performances at a rate greater than average, and separated people attending ballet at a greater than average rate.

Work Hours

Those who are not working attend all art forms (except ballet) and read literature at rates that are below average; part-time workers participate consistently at above average rates. Similarly, those working 40 hours attend jazz performances and read literature at slightly above average rates. Those who work more than 40 hours a week generally attend arts events at greater than average rates, but read literature at a below average rate.

Occupation

Professionals, managers, students and to a lesser extent, sales-clerical personnel, are more likely than average to participate in arts activities. Other types of workers only rarely exceed the average participation rate for any of the art forms. Exceptions include the retired in attending opera.

Presence of Children

Individuals with fewer child care responsibilities generally have participation rates slightly greater than average. Parents with younger children generally show participation rates below the average. Parents with older children are both above and below the average for different art forms.

Relative Differences After Adjustment

The second part of our analysis identifies the most important determinants of participation for each art form after the adjustment for other factors as described in detail in Chapter 2. As noted there, the unadjusted associations only serve to predict the likelihood of participation among different groups categorized by a single background variable (e.g., age or education), without taking into account all the other background factors. The adjusted figures, on the other hand, show the association between participation and each background factor, after all the other background variables have been controlled. This latter procedure isolates the effect of each variable, thus providing some explanation of participation rates. For example, the differences or "effects" of income may be partially due to the association between income and education; the adjusted figures show the net effect of income when education effects are removed.

When compared to the unadjusted figures, the adjusted figures will be higher, lower, or show no significant change. If the adjusted figure shows higher attendance, then the actual attendance rate (the unadjusted figure) has been suppressed because associated background factors are related to lower participation. In the case of gender, for example, women's participation may be suppressed by the fact that women generally have less formal education or income, or are older than men. Once these suppression effects of education, income, age, etc. are controlled, women's participation rates (relative to those for men) are increased.

On the other hand, if the adjusted figure is lower than the unadjusted figure, then the actual attendance rate by that factor has been inflated by the associated effects of other background factors. This was the case in

Chapter 2 when we controlled differences in attendance levels by race (and income) for differences by education. If the adjusted and the unadjusted figures are about equal, however, the background variables do not have a systematic influence on the association between the factor and participation rates.

As noted in Chapter 2, while this adjustment procedure isolates the effect of each variable, it does not identify which background variable(s) intervene in the association between the unadjusted variable and participation rates. It should also be noted that any explanation, adjustment or control does not extend beyond those 11 variables specifically included in Table 3.4.

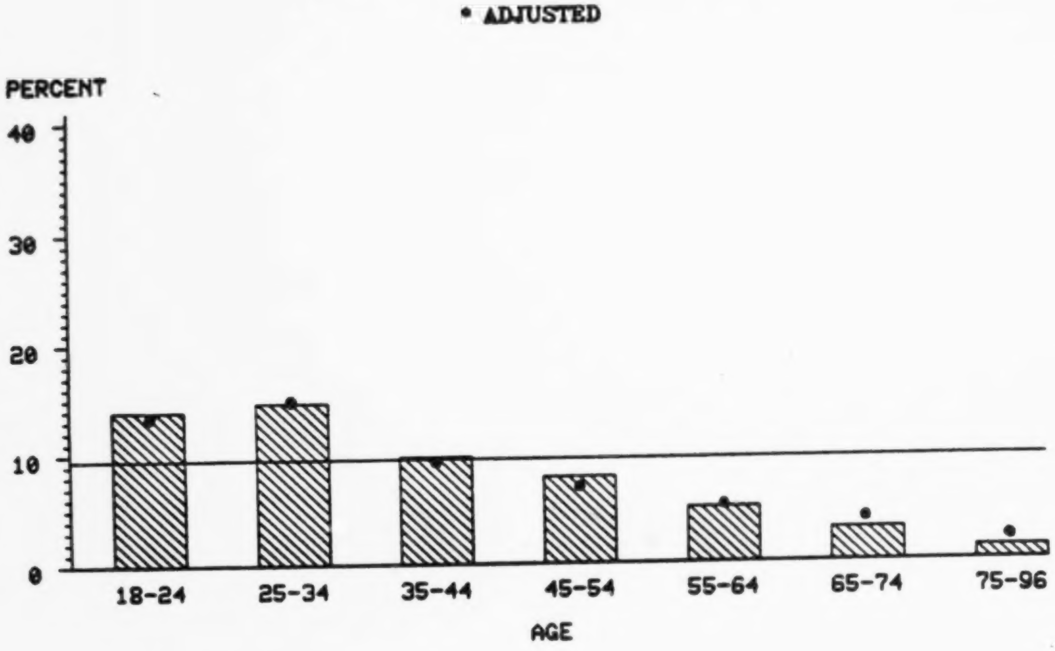
A description of the relationships between participation and each background factor follows, as does a graphic representation. The graphs are a useful way to perceive the trends at a glance, but the exact figures are better extracted from Tables 3.3 and 3.4. In the graphs which follow , the unadjusted figures are represented by bars, the adjusted figures by dots, and the national average by the horizontal line. In the accompanying text for each figure, the first paragraph summarizes unadjusted data, and the second examines the effects of isolating the influence of a given background variable from those of the 10 other factors studied.

JAZZ

The best predictors of attendance rates for jazz performances are work hours, education, occupation and income, in that order (variations of 13 to 23 percentage points).

After controlling for the effects of other background factors, the most important predictors are education, income, occupation and age (variations of 6 to 16 percentage points).

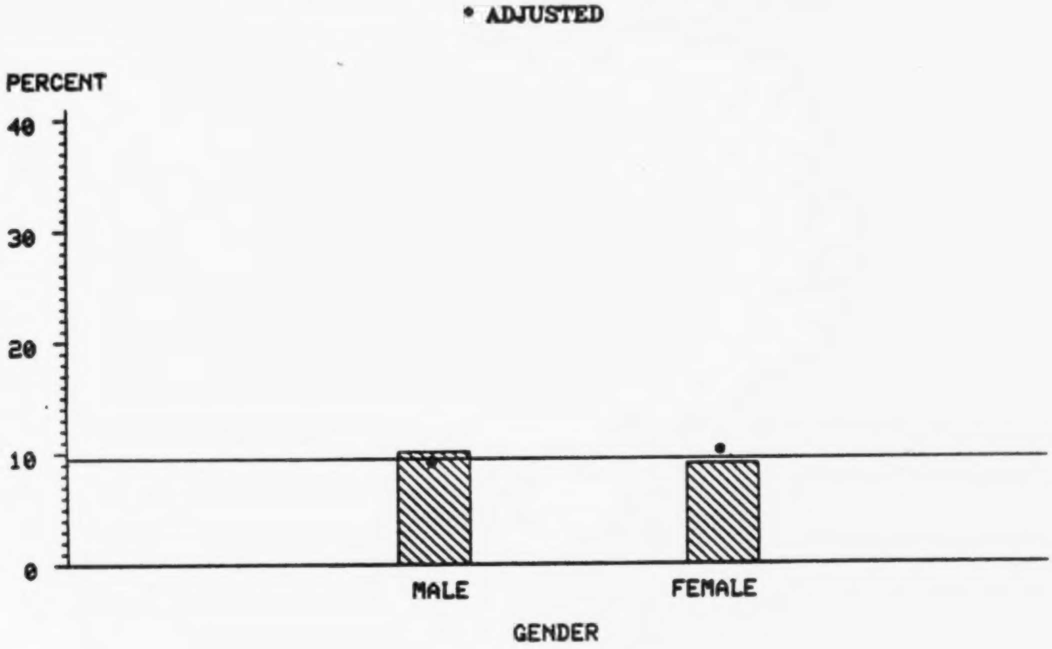
ATTEND JAZZ BY AGE



Attending jazz performances generally declines with age. Those aged 18-34 are almost twice as likely to attend a jazz performance as people aged 45-54, and participation continues to drop with increasing age, until among those aged 75 and over, less than 2% attend.

These age differences are reduced somewhat when other background factors are taken into account (as shown by the differences between the dots, the adjusted figures, and the bars in the graph). This is probably due to such age-related factors as education and work status. Other age-related background factors like work status and education probably tend to decrease participation by older people. Nevertheless, when these and other factors are held constant, the general trend remains the same--the attendance rates for jazz performances decline with age.

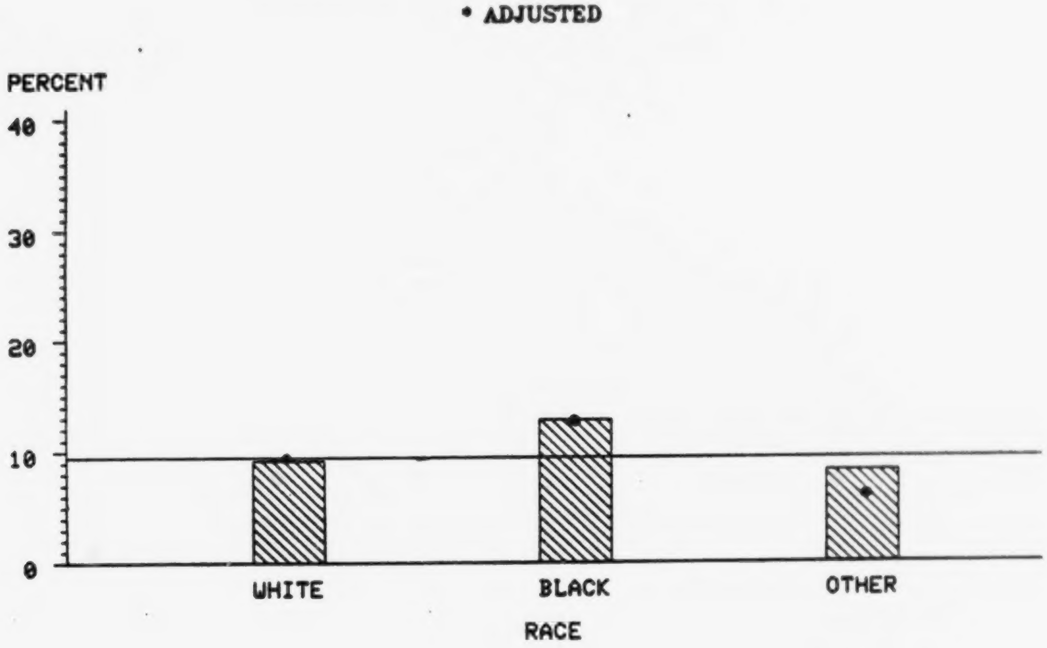
ATTEND JAZZ BY GENDER



Men are slightly more likely to report attending jazz performances than are women.

After adjustments for the impact of other background factors, women are more likely to attend jazz performances than are men. Gender is generally not a useful factor in either predicting or explaining attendance at jazz performances.

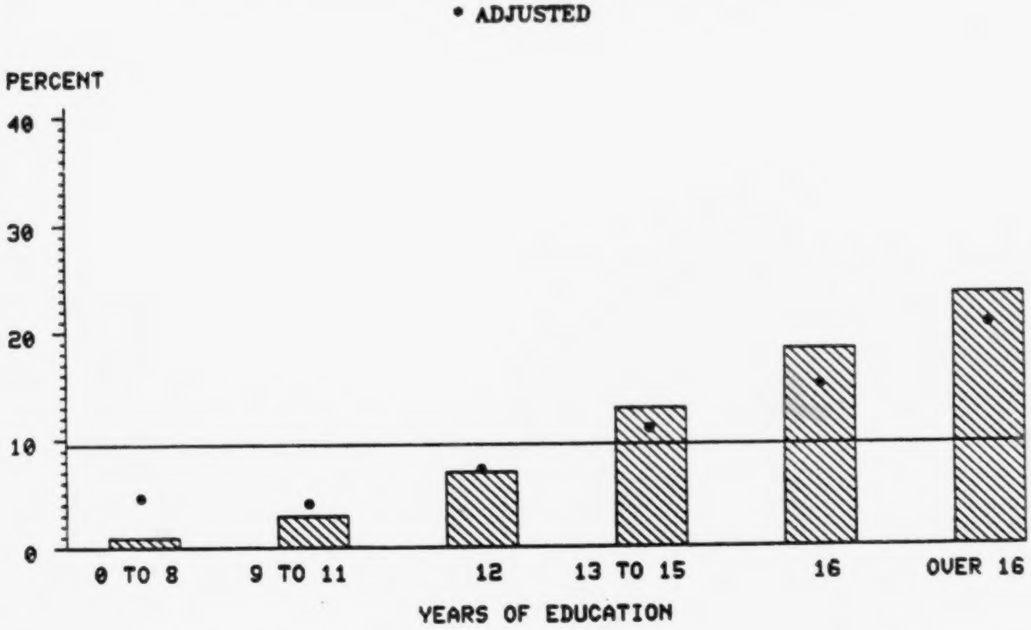
ATTEND JAZZ BY RACE



Greater jazz attendance was reported among black respondents than among either whites or respondents with "other" racial backgrounds.

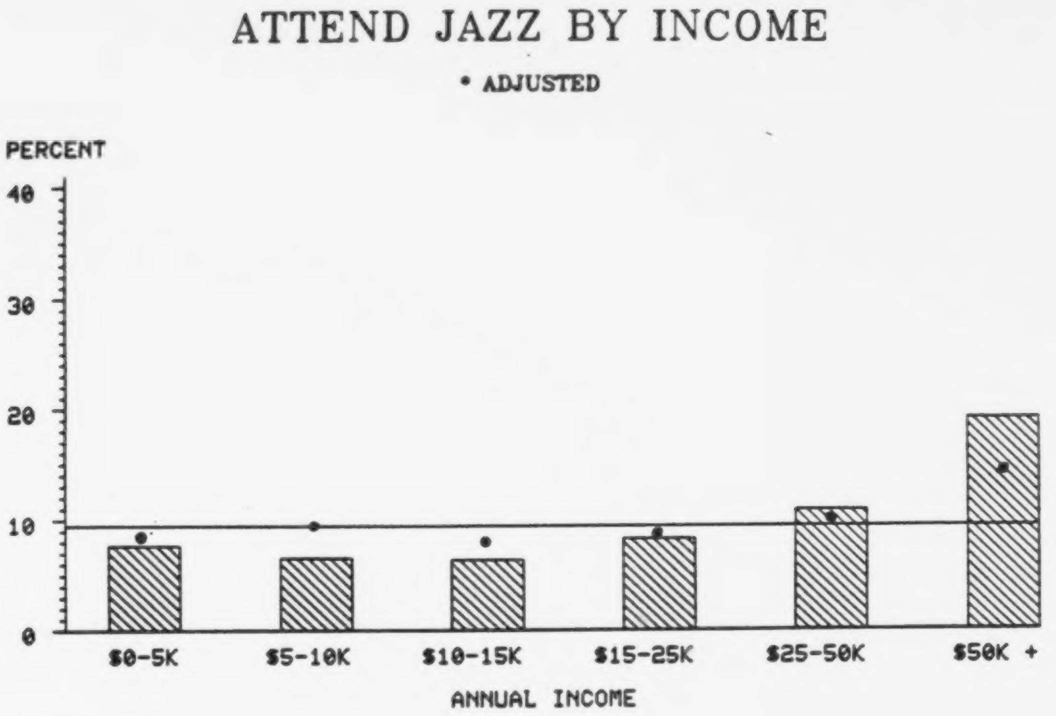
Controlling for other background variables only slightly affects participation rates for blacks and whites, but the attendance rate for "other" races declined after statistical adjustment, and apparently had been inflated by related background factors. Race, in and of itself, is a useful factor in explaining attendance at jazz performances.

ATTEND JAZZ BY EDUCATION



Attending jazz performances increases with higher education levels. Those with graduate school education attend jazz performances at a rate ten times that of respondents with only a grade school education.

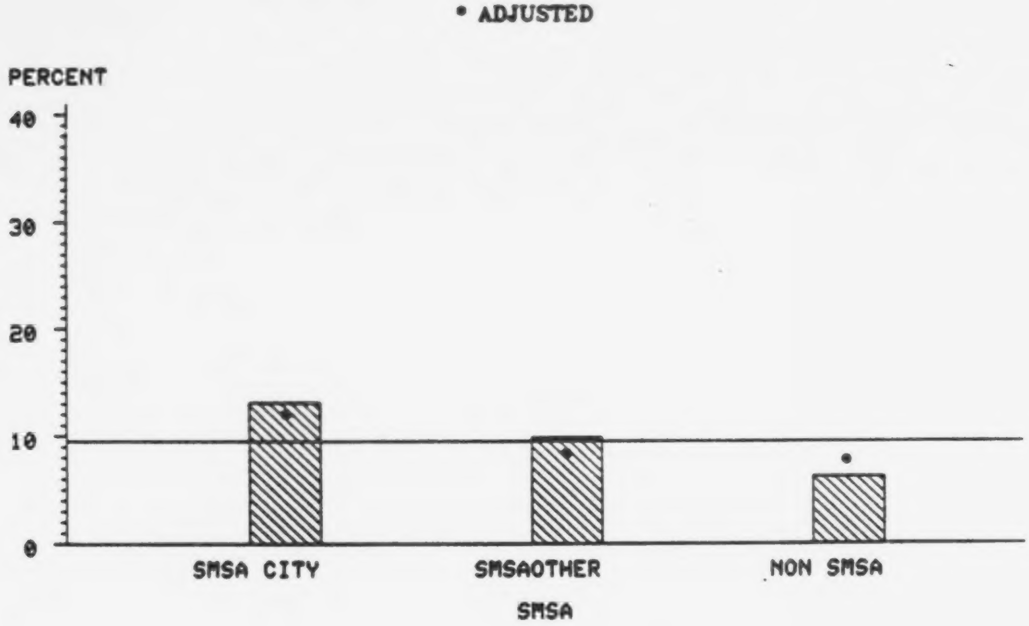
These differences decrease for those with a high school education or below when other background factors are taken into consideration, while differences decrease for respondents with some college education and up to graduate school. However, increasing jazz attendance with increasing education remains a strong pattern. Education proves to be a useful factor in explaining attendance at live jazz performances.



Persons from wealthier households are somewhat more likely to attend jazz performances, but the tendency is marked only for the wealthiest income bracket.

When other factors are held constant, these modest differences are further diminished. This is probably due to the close association between income and education; when the effect of education is removed, income is a relatively weak predictor of jazz attendance (see Chapter 2), but probably helps to predict attendance because of its underlying association with educational level.

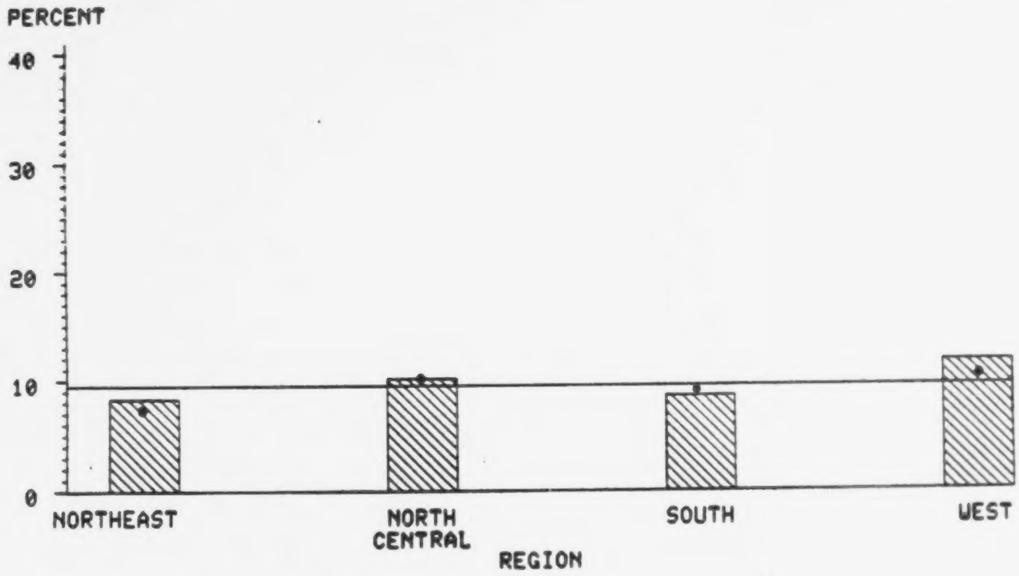
ATTEND JAZZ BY SMSA



People living in the central cities of SMSA's are slightly more likely to attend jazz performances than those living in less concentrated locations in SMSA's (such as suburbs), but are more than twice as likely to attend as those living outside of SMSA's.

These differences are reduced slightly after adjustment. Even when other background factors are held constant, however, SMSA residents of central cities are still somewhat more likely to attend jazz performances than those residing in SMSA's outside of central cities, who, in turn, are more likely to attend than those residing outside of SMSA's. These other background factors act to discourage attendance by non SMSA residents, while they slightly elevate attendance by people living in other locations.

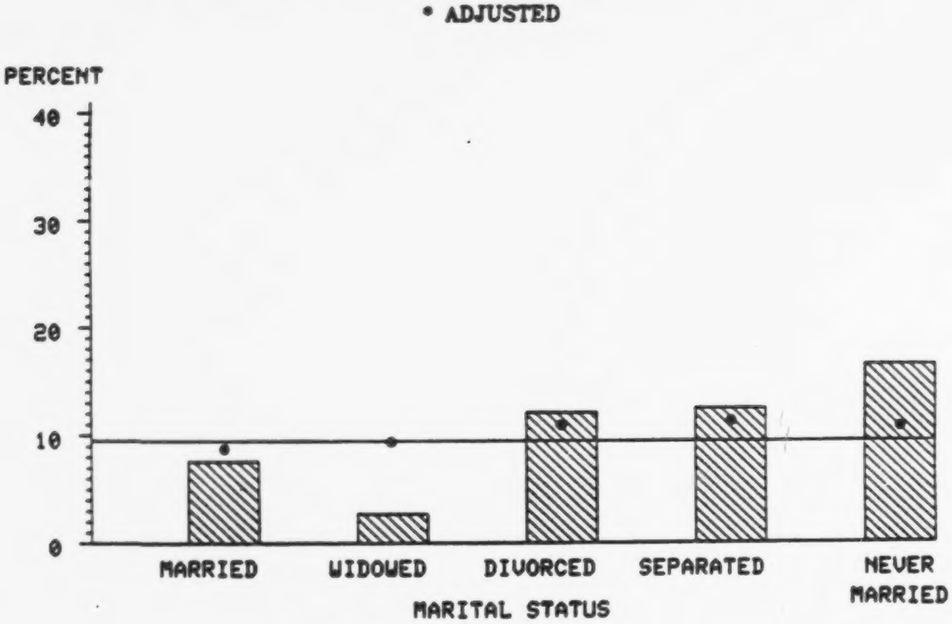
ATTEND JAZZ BY REGION



Residents of the West and Northcentral regions reported slightly higher attendance at jazz performances.

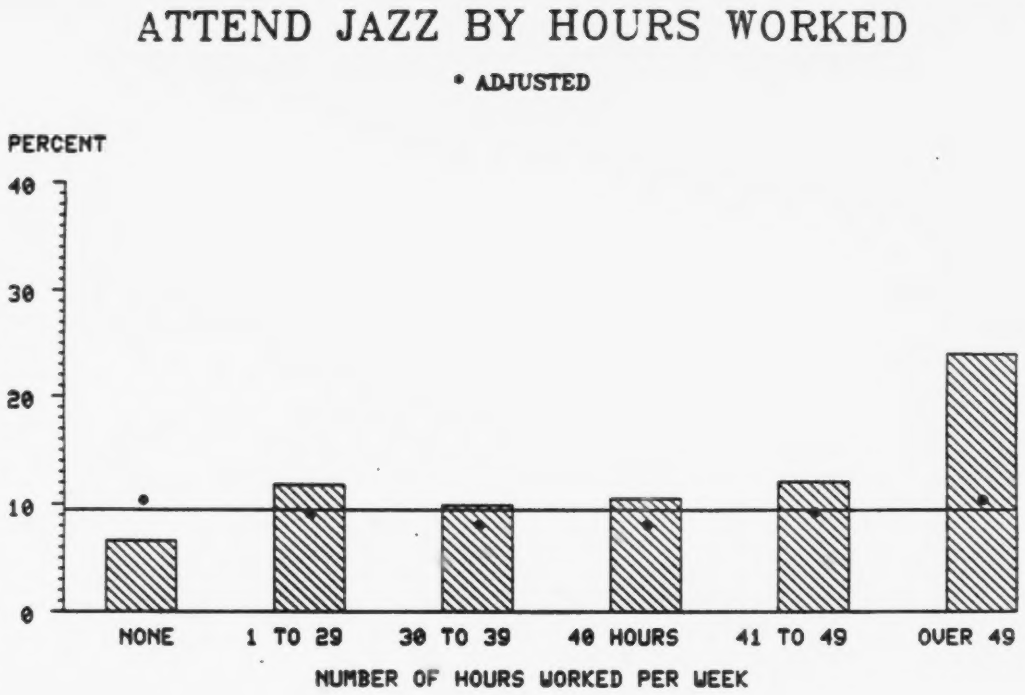
These small differences tend to hold up after MCA control for other factors.

ATTEND JAZZ BY MARITAL STATUS



Married people and especially widowed people have lower than average attendance rates for jazz performances. Those divorced and those separated have higher than average rates. Those never married are twice as likely to attend as the average person is.

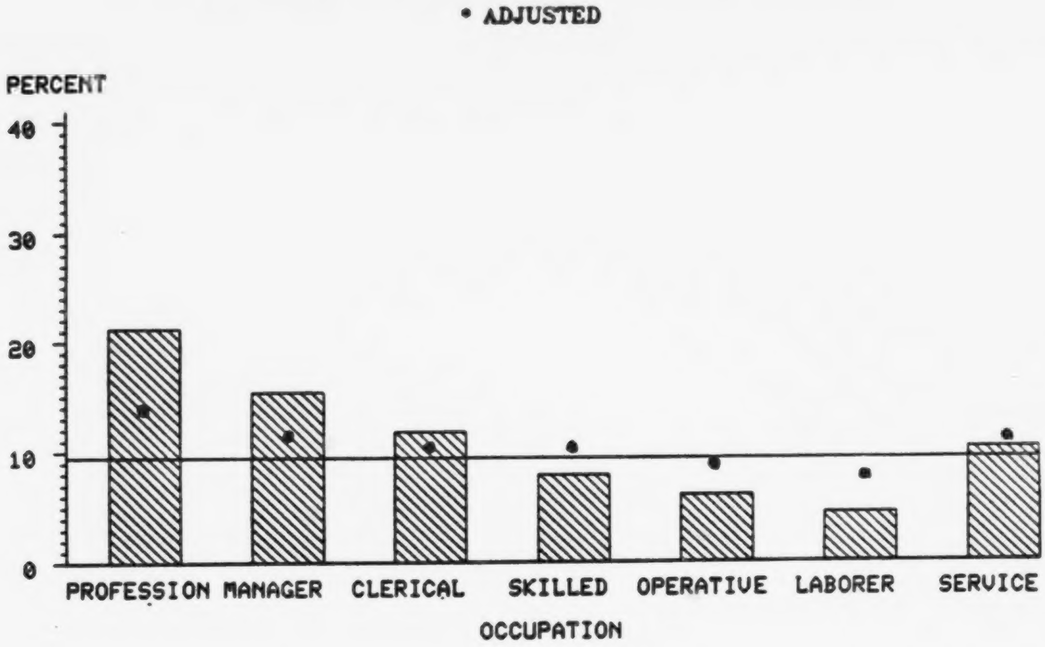
When other factors are held constant, however, the two groups with the lowest and the highest attendance rates (the widowed and the never married, respectively) show much more average participation rates. One important underlying factor here might be the effect of age; the youthfulness of the jazz audience might have underrepresented attendance by widowed people and overrepresented attendance by people who never married, until a statistical control for age was applied. Still, even after such adjustments, married people and the widowed are less likely than other groups to attend jazz performances.



The "not working" group is the only category falling below the national average. The other categories of hours worked have fairly similar rates, but the 30-39 hours a week group has the lowest rate among employed people. The group working 50 hours or more has the highest rate of jazz attendance.

The adjusted figures show an interesting reversal-- the only group among the unemployed people to stay above the national average is the 50 or more hours group. All other groups show less attendance. The "not working" group, however, is now above the average after adjustment. It may be that adjustment for race and age accounts for this reversal. For example, youthful blacks, who tend to be either unemployed or students, may attend jazz performances more frequently.

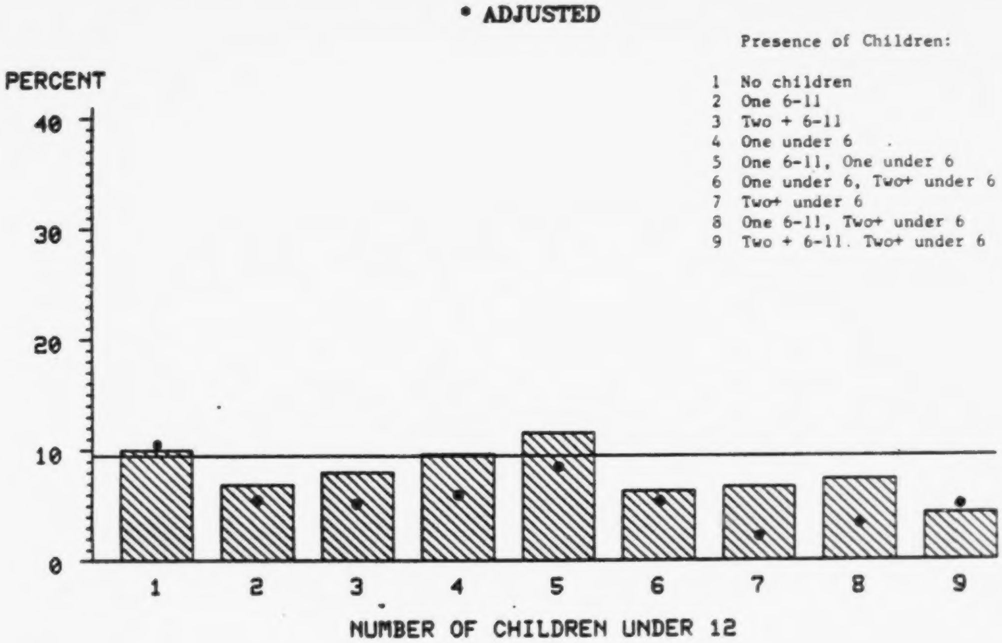
ATTEND JAZZ BY OCCUPATION



Professionals have an attendance rate over twice the national average, while operatives show below average attendance. Three other occupational categories not shown in this figure also have unusual attendance rates. Students (15%) attend at nearly twice the national average, while the retired (3%) and housekeepers (4%) show exceptionally low attendance rates.

These extremes in participation rates are considerably moderated after controlling the impact of other background factors. For example, age and education might have suppressed retired participation (adjusted rate of 8%), while inflating student attendance (adjusted rate of 7%).

ATTEND JAZZ BY NUMBER OF CHILDREN



Generally, people with no children under 11 years of age are more likely to attend jazz performances than people with children of this age. One exception is those with one child less than six and one child 6-11, who are more likely to attend than those with no children; both groups exceed the national average.

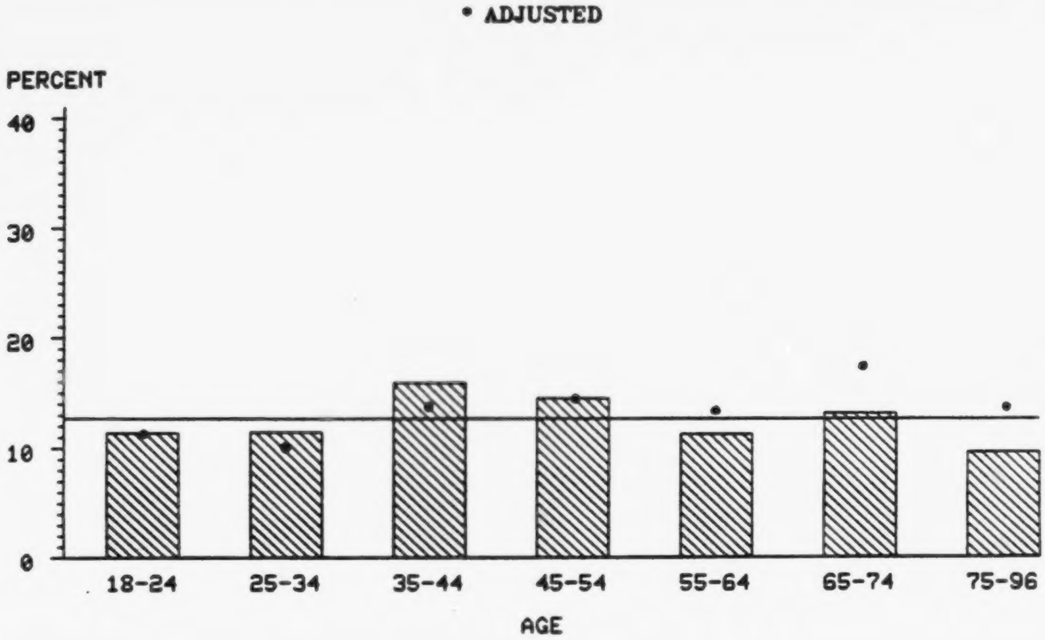
With other factors held constant, however, the effect of children is uniformly associated with lower than average attendance rates. People with no children are the only group above the national average. Moreover, young children appear to particularly inhibit attendance. One likely reason for the adjustment toward lower rates, particularly for those with a single child under six, is the opposing effects of age--younger people are more likely both to attend jazz performances but also to have young children who inhibit their attendance.

CLASSICAL MUSIC

Education, occupation, and income are the most important factors in predicting attendance of classical music performances (with variations of 23 to 38 percentage points).

After adjustment for other factors, education remains the most important determinant of attendance (variation of 35 points).

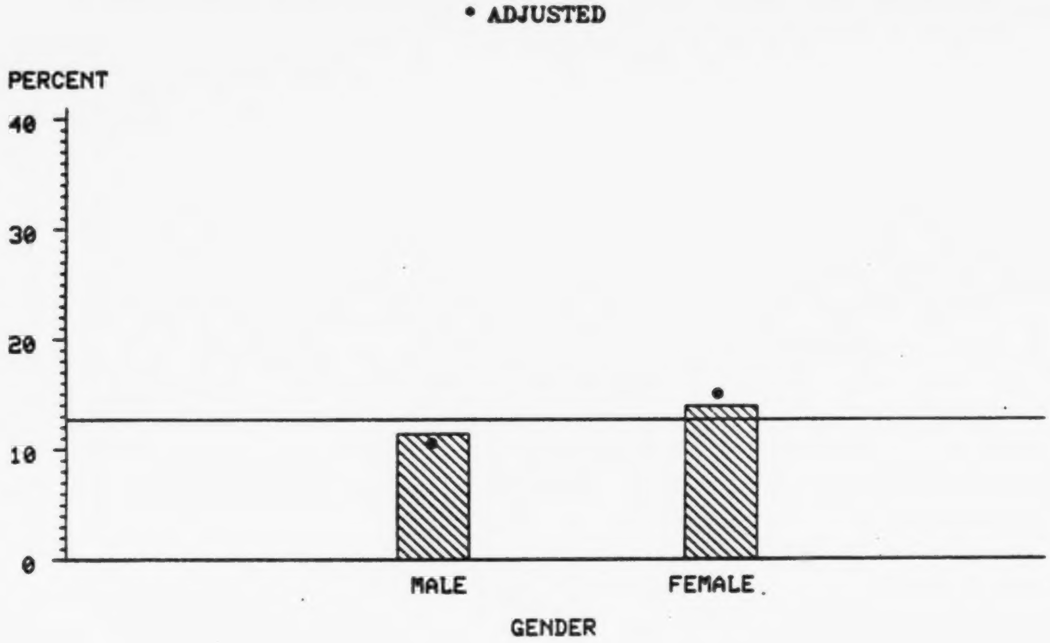
ATTEND CLASSICAL MUSIC BY AGE



The attendance rates for classical music performances are highest for the 35-44 group, and next with the 65-74 group. With these two exceptions, attendance of classical music performances declines with age.

After adjustment for the influence of other background factors, the 35-44 age group drops slightly, as do the other groups, with one exception. The 65-74 group becomes the highest rate, by a large margin. This suggests that it is the other factors associated with age (e.g., education), not age per se, which deflate attendance rates for older groups.

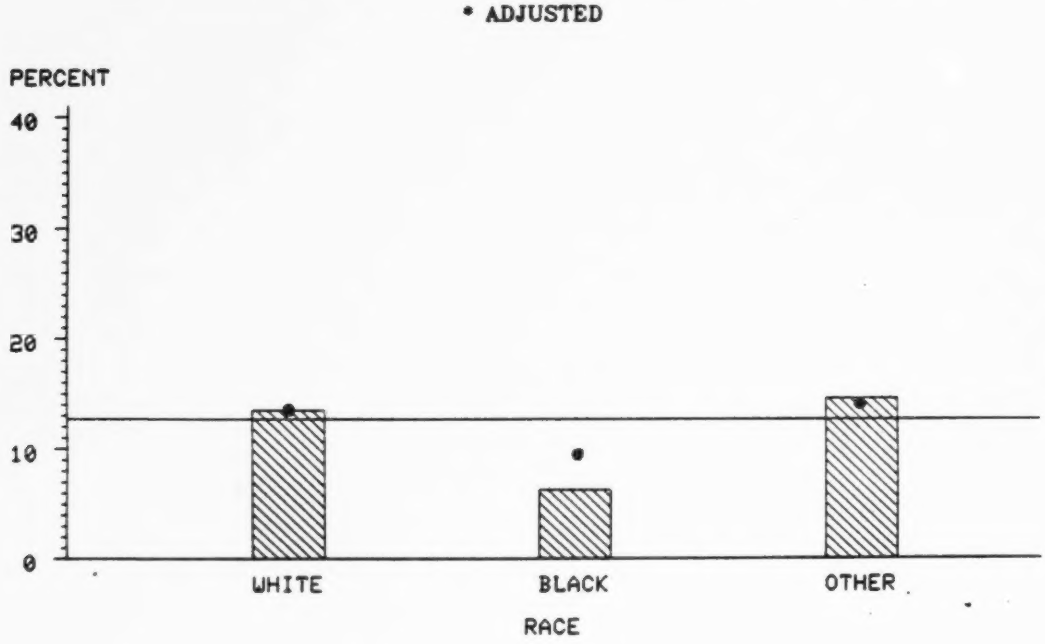
ATTEND CLASSICAL MUSIC BY GENDER



Females are more likely to attend classical music performances than are males, but the difference is not large.

When other background variables are equal, the difference is a little larger, indicating some associated factor(s) suppressed the unadjusted association between participation and gender (e.g., lower income and/or education among females). Thus, gender seems to be a moderately important explanatory factor in explaining attendance at classical music performances.

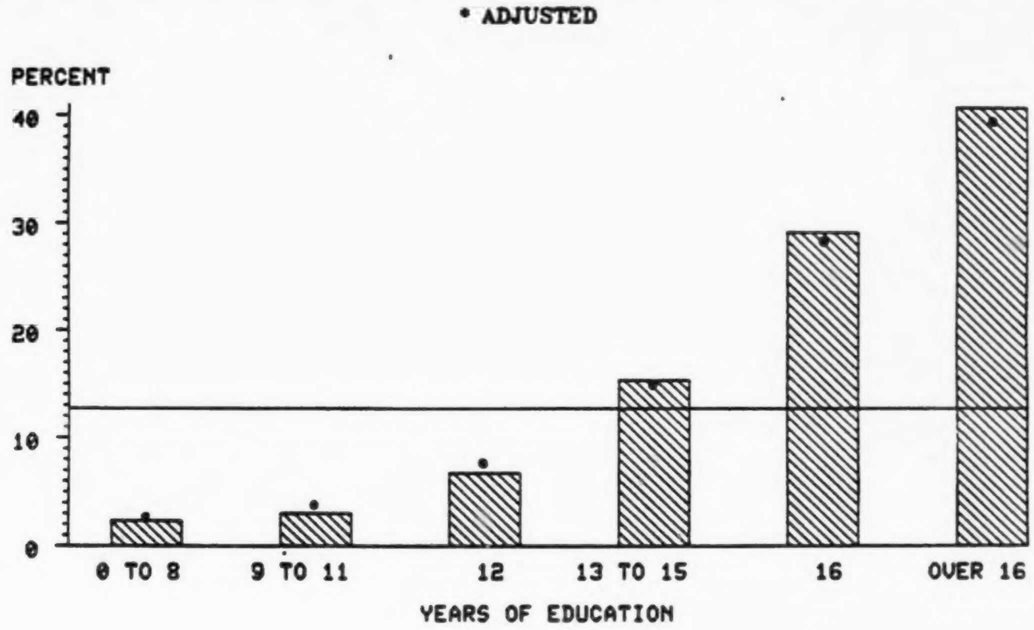
ATTEND CLASSICAL MUSIC BY RACE



Among racial groups, "other" races attend at the highest rate, with whites slightly below them. Blacks attend at a rate that is less than half the national average.

When other factors are held constant, "other" racial groups and whites decrease slightly but blacks' rate increases somewhat. In other words, background factors like education (lower among blacks) suppress blacks' attendance of classical music performances.

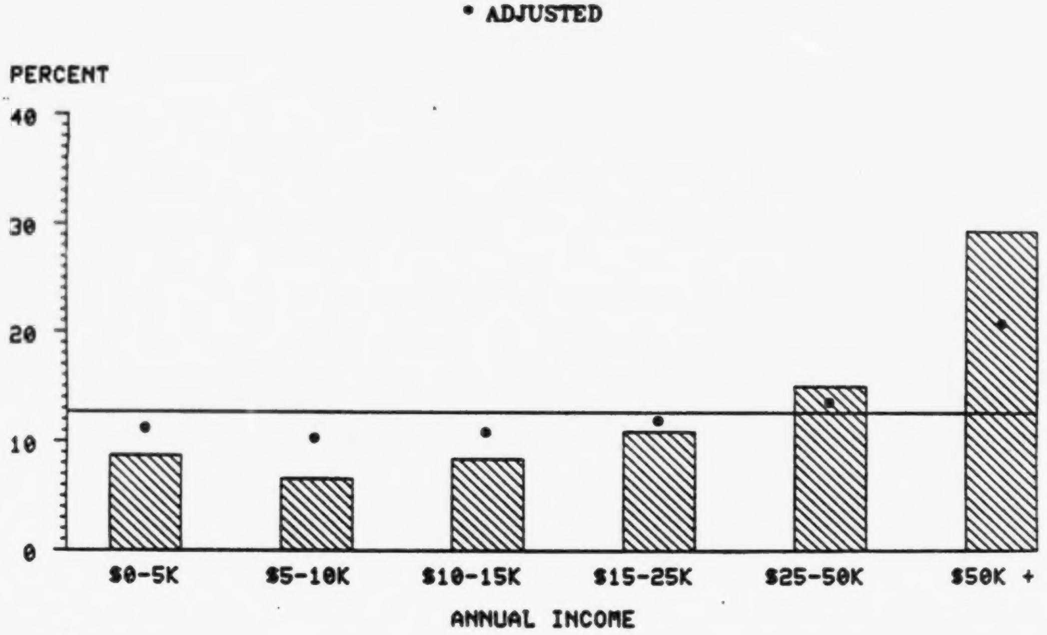
ATTEND CLASSICAL MUSIC BY EDUCATION



Attendance of classical music performances is strongly and positively associated with increased education. The watershed point is attending some college--those never taking college courses are considerably less likely to attend performances than the average person; those with at least some college are much more likely than the average to attend (up to three times as likely for those who attended graduate school).

The pattern is fundamentally unchanged after controlling for other background factors, indicating education is both an effective predictor of attendance at classical music performances and a strong explanatory variable independent of the other background factors studied.

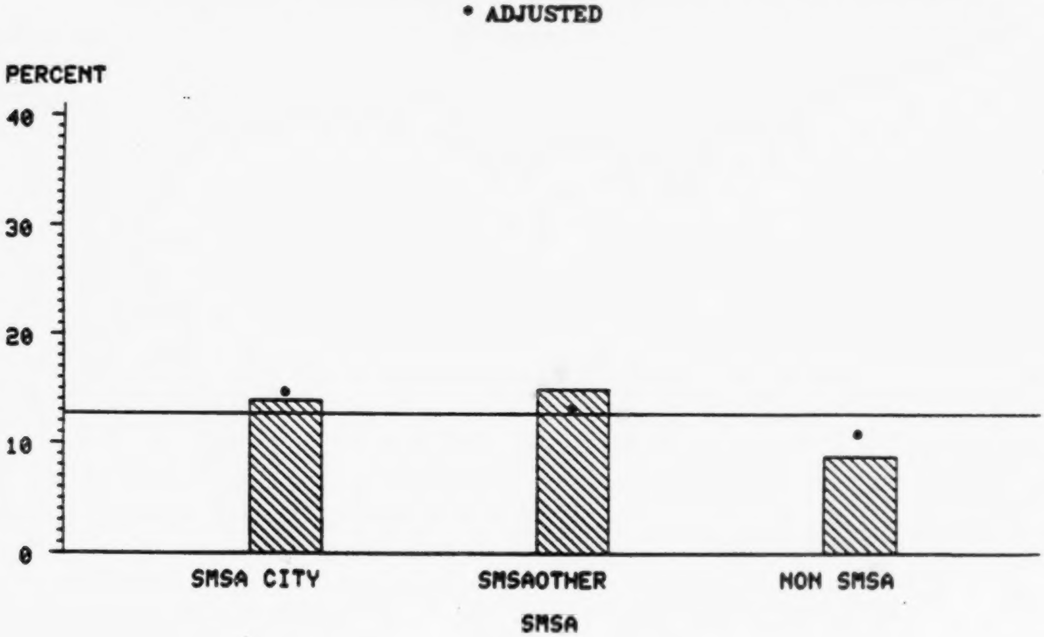
ATTEND CLASSICAL MUSIC BY INCOME



Attendance of classical music performances also rises with income levels. Starting with the category of $25,000-$49,999, the attendance rate climbs steeply above the national average.

If other background factors are held constant, however, the range of differences is considerably lessened. Attendance hardly varies among the lower income brackets, but still climbs steeply--though not as steeply as before adjustment--with the $25,000-$49,999 bracket. Thus, income explains little of the variation below the highest income brackets, once the influence of more powerful factors (like educational differences between income groups) has been removed.

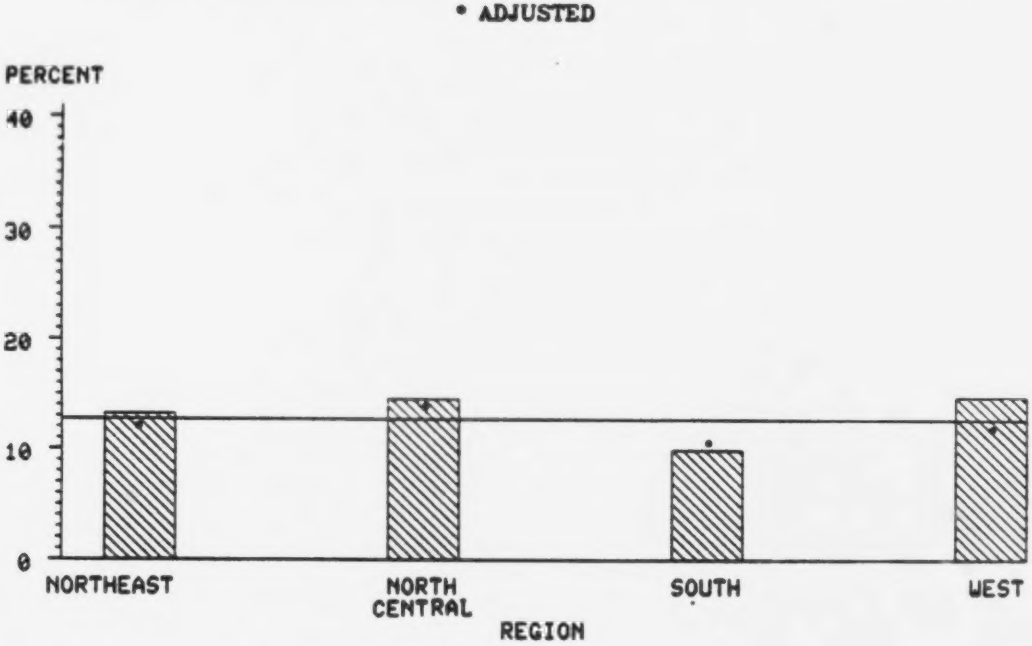
ATTEND CLASSICAL MUSIC BY SMSA



Those living in an SMSA, whether inside (SMSA city) or outside (SMSA other) of a central city, are slightly more likely to attend classical music performances than the national average; those residing outside of an SMSA are lower than average in attendance.

Controlling for other background factors affects the attendance rates of central city residents very little. For these two latter categories, then, location per se does not seem to be a primary factor that explains differences in participation rates. Differential (i.e., higher) education among those in the suburbs probably accounts for the original unadjusted rate. However, the rate of those in an SMSA outside of the central city falls just below the national average, approximating the rate of those residing outside of SMSA's.

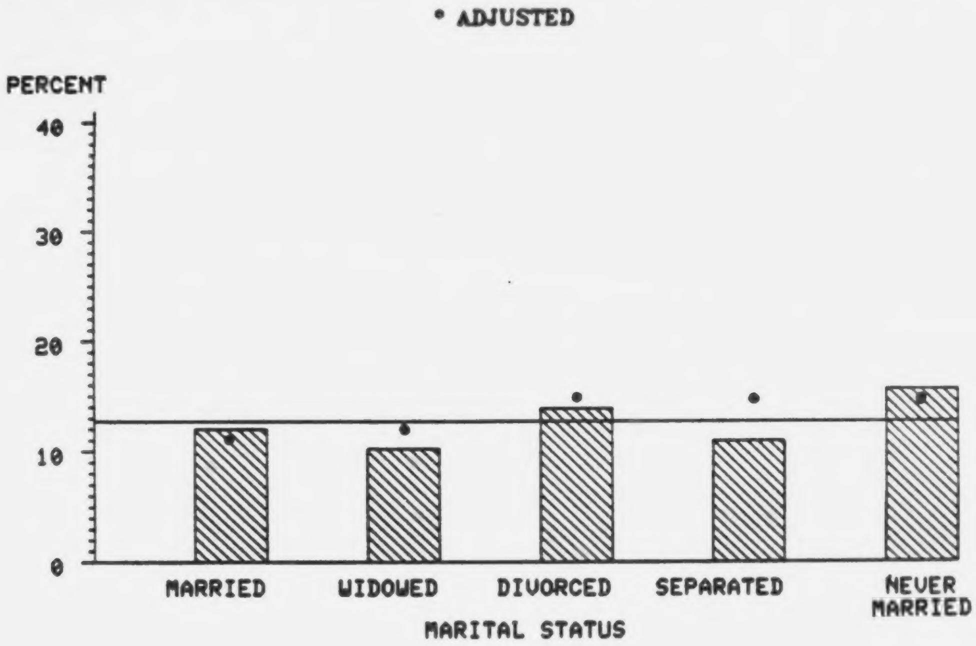
ATTEND CLASSICAL MUSIC BY REGION



Residents of the West and Northcentral regions report highest attendance at classical music performances, while residents of the South reported lowest attendance.

These regional differences are largely eliminated after MCA control for other factors.

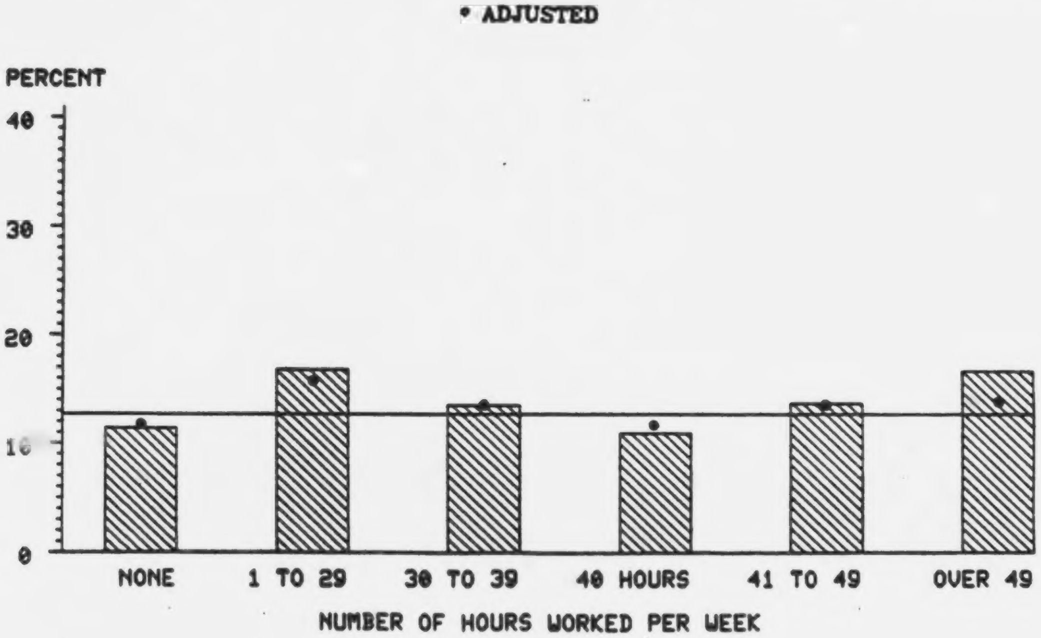
ATTEND CLASSICAL MUSIC BY MARITAL STATUS



Those divorced and those never married attend classical music performances at rates above the national average. Those married are somewhat less likely than average to attend, while those widowed or separated are least likely to attend.

When other background factors are held constant, those never married and those separated attend at levels slightly above the national average, while attendance in other categories hardly changes at all. Age, income, and type of work may be the major factors suppressing participation by divorced and separated people, and those never married.

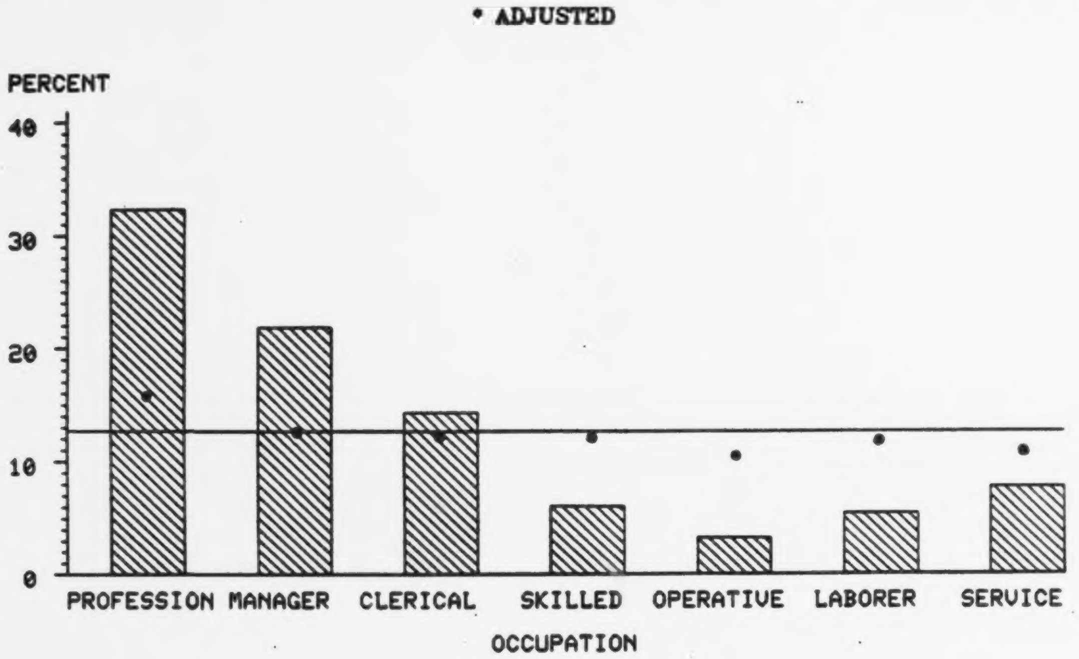
ATTEND CLASSICAL MUSIC BY HOURS WORKED



Those not working and those working 40 hours per week are less likely than average to attend classical music performances, while those who work 1 to 29 or 50 or more hours per week are the most likely to attend.

When other factors are held constant, those working 1 to 29 hours show the highest rate, while all other groups attend at a lower rate, hovering near the national average. Those working 40 hours attend at the lowest rate. Education may be a factor here.

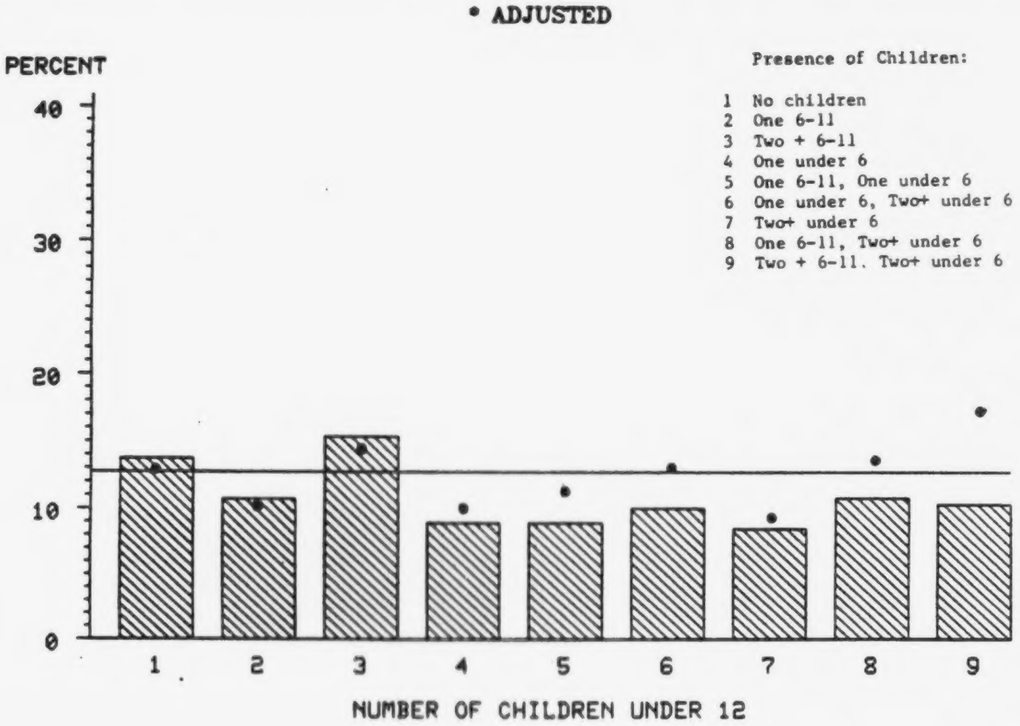
ATTEND CLASSICAL MUSIC BY OCCUPATION



Attendance rates vary greatly by type of work. Professionals attend at over twice the national average; students, not shown in this figure, also attend at a high rate (19%), close to that of managers. On the other hand, skilled craftsmen, operatives and laborers attend at rates less than half the national average. Other groups not shown in the figure, those not working (10%), those keeping house (11%) and the retired (11%) also attend at lower rates.

After adjusting for the other background variables, this variation is considerably reduced. Students now become the highest attenders (17%) with professionals close behind. Those not working, those keeping house and the retired are below the average. Much of this fluctuation is probably due to controlling the effects of income and education which are closely associated with occupation.

ATTEND CLASSICAL MUSIC BY NUMBER OF CHILDREN



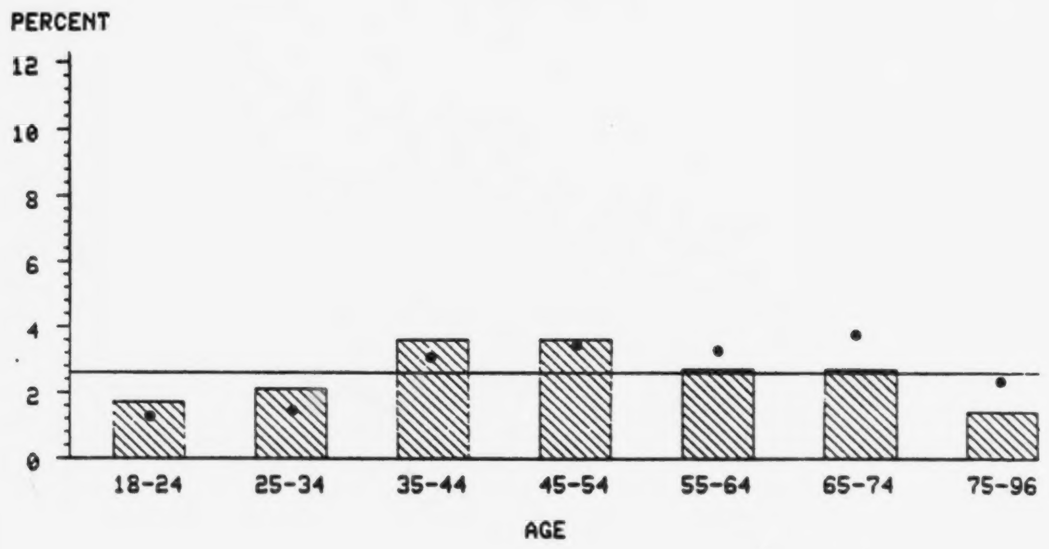
People without children at home are more likely than average to attend classical music performances. Generally, those with children are less likely than average to attend with one exception: people with two or more children aged 6-11.

When other factors are held constant, the pattern remains the same except for a rise in attendance among those with children and moreso in categories of people with very young children. Also, people with two or more children 6-11, and two or more children under 6 show the highest attendance by a large margin.

OPERA

The most important predictors of opera attendance are education, income and occupation (variations of 7 to 10 percentage points). When other factors are controlled, the factor that accounts for the most variation is education (8 points).

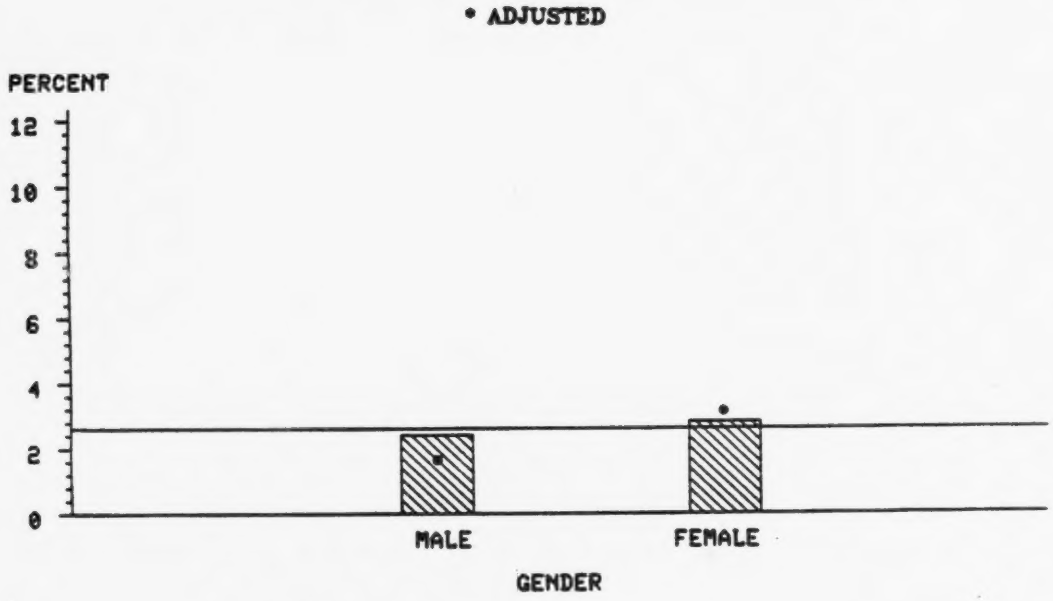
ATTEND OPERA BY AGE



As age increases, opera attendance also rises, reaching peak attendance rates in the 45-54 age category, slowly dropping in the 55-74 age group and then falling considerably below the national average in the over-75 group. Attendance rates definitely skew toward the older population.

When other factors are controlled for, the positive relationship between age and attendance is strengthened. Those over 35 are more than twice as likely to attend as those 18-24. Increasing age increases the likelihood of attendance, and attendance doesn't really drop off until the highest age category of people over 75. Even in this age category, participation is close to the national average, when factors like education, and work hours are taken into consideration.

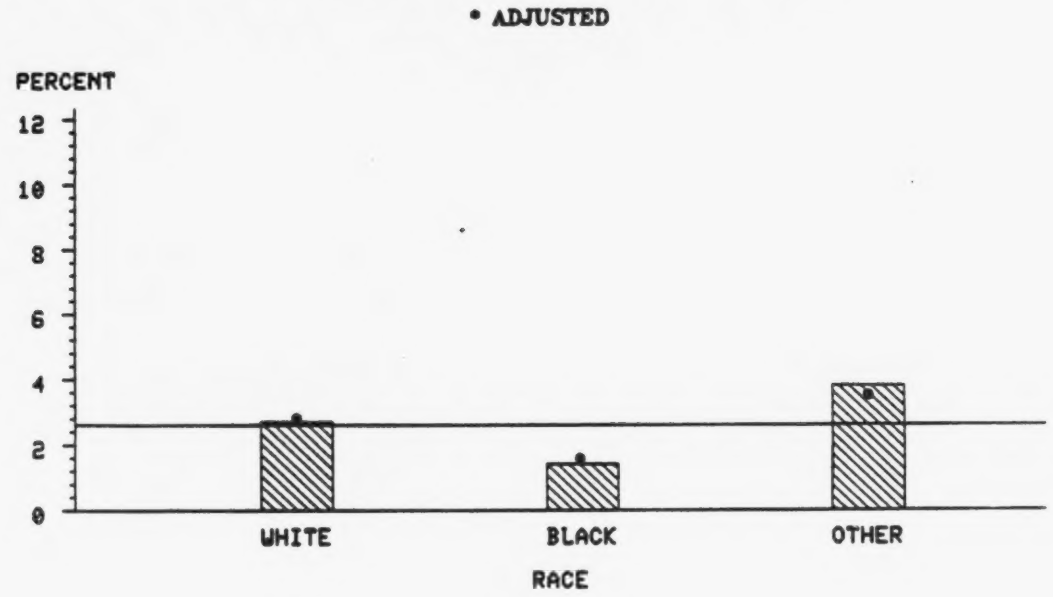
ATTEND OPERA BY GENDER



Females are more likely to attend opera than are males.

If the effects of other background variables like education are removed, differences between male and female attendance rates become even greater. Since females tend to have less education than males, and education is positively associated with attending the opera, education might be an important explanatory factor in these findings.

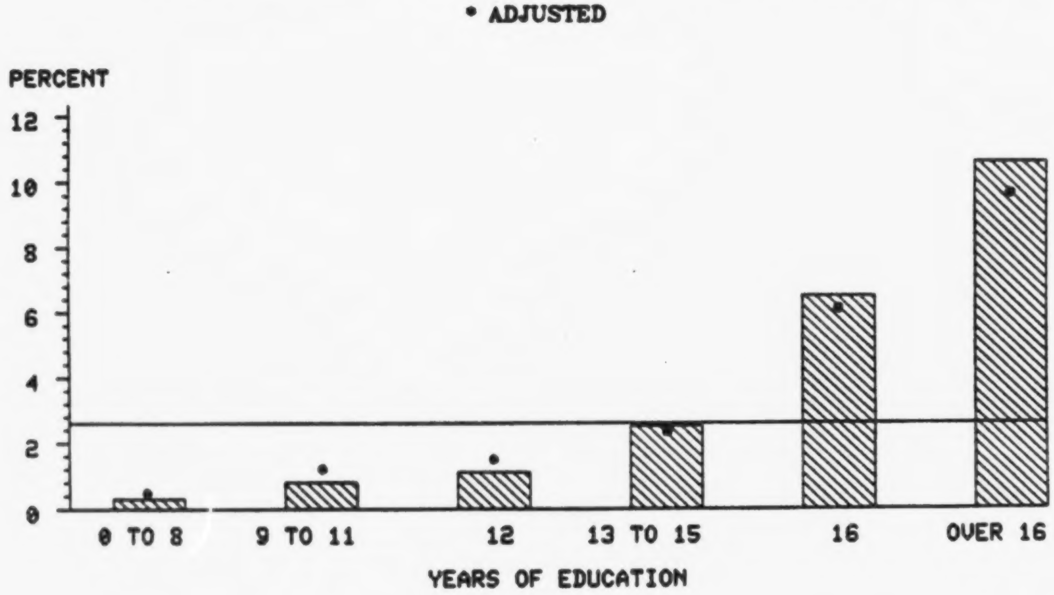
ATTEND OPERA BY RACE



Blacks attend opera at less than the average national rate, while whites attend slightly above the national average, and "other" races attend at well above the average.

When the other background factors are held equal, black participation is increased and whites' rate is essentially unchanged. "Other" races' rate drops only slightly. Thus, race has an effect independent of the other background factors for comparisons between blacks and whites, but not for comparisons between blacks and "other" races.

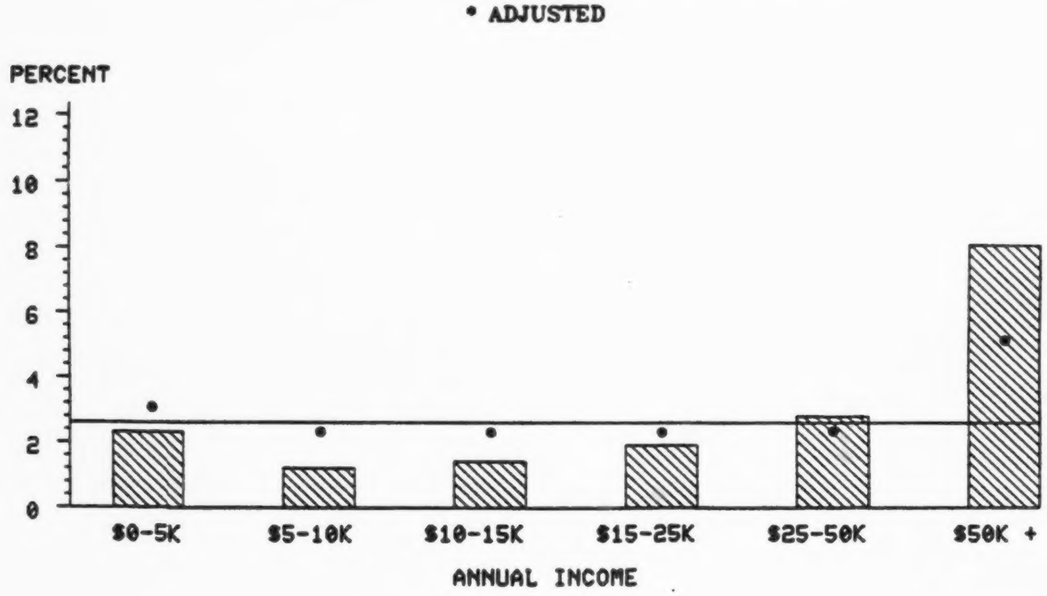
ATTEND OPERA BY EDUCATION



Better educated persons are more likely to attend opera performances. Those with less than a high school education attend at less than a third of the average rate; those with education beyond high school attend at rates progressively greater than the national average, until those with graduate school education attend at a rate three times the national average.

The pattern of rising attendance with increased levels of education remains fundamentally unchanged after adjusting for the effects of the other background variables. The linear relationship between education and attendance at the opera makes education an important explanatory factor.

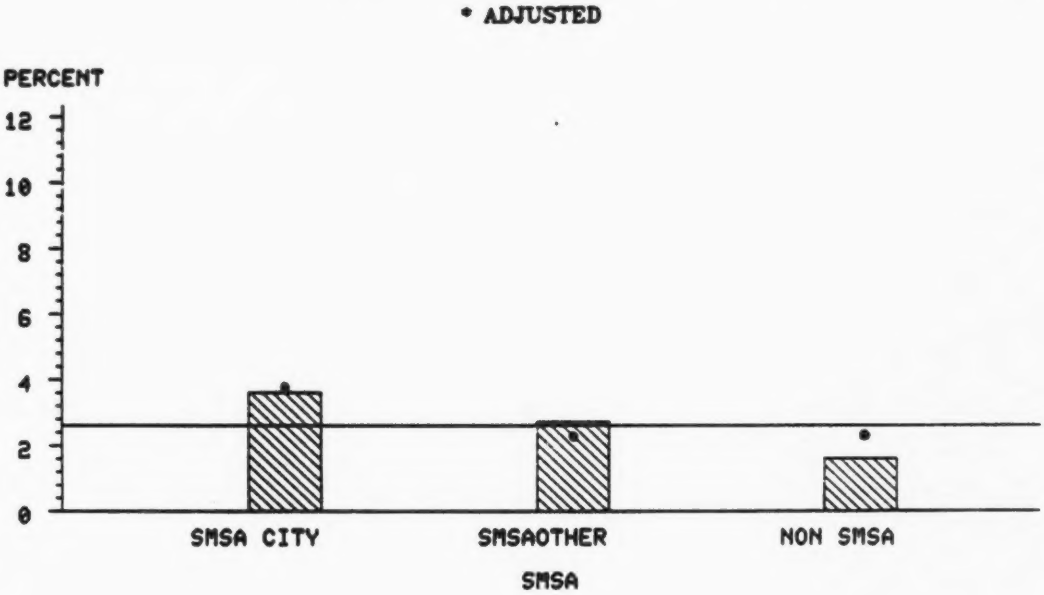
ATTEND OPERA BY INCOME



While those who are wealthier are more likely to attend operas, only those in the highest income bracket attend at a markedly higher rate.

The general trend, though somewhat diminished in range, is the same after adjustment. The close association between education and income probably accounts for these weaker results after the effects of income are isolated from those of other background factors.

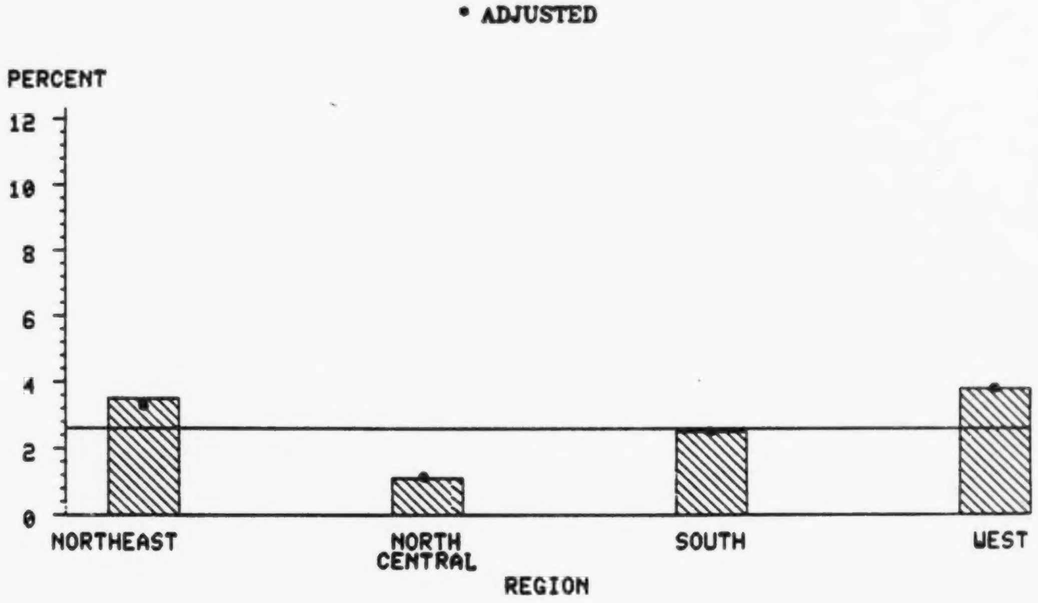
ATTEND OPERA BY SMSA



Opera attendance is greatest among those living within an SMSA, inside a central city, while those outside the central cities ("SMSA Other") are slightly above the national average. Outside of SMSA's, residents attend at a rate of less than half the national average. These differences might reflect the greater availability of opera performance in urban areas compared to nonurban areas.

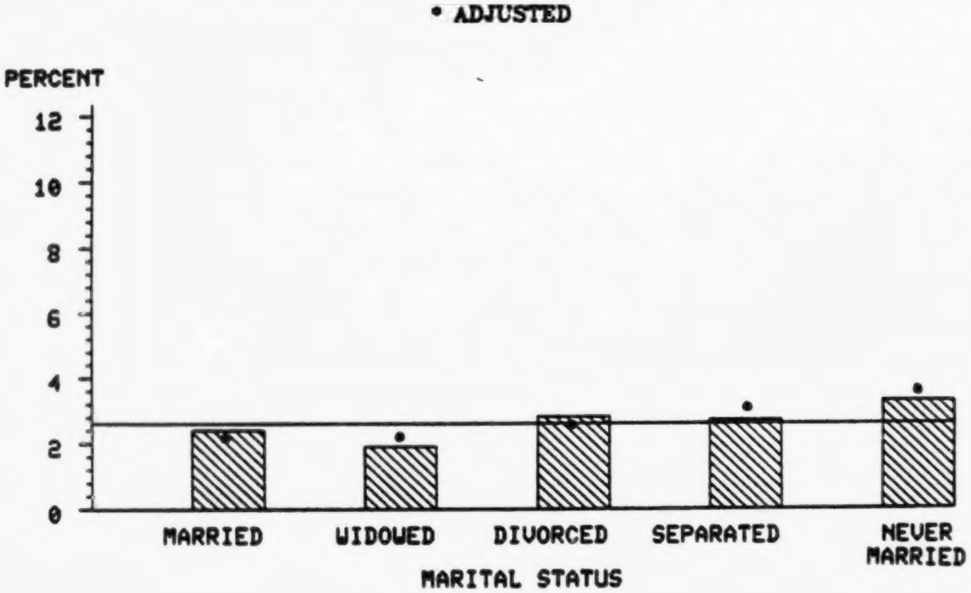
After equalizing the other factors, non SMSA participation increases to match "SMSA Other" participation, while city participation remains unchanged.

ATTEND OPERA BY REGION



Northeast and Western respondents reported above average opera attendance and those in the Northcentral are below average in attendance. This was true both before and after MCA control for other factors.

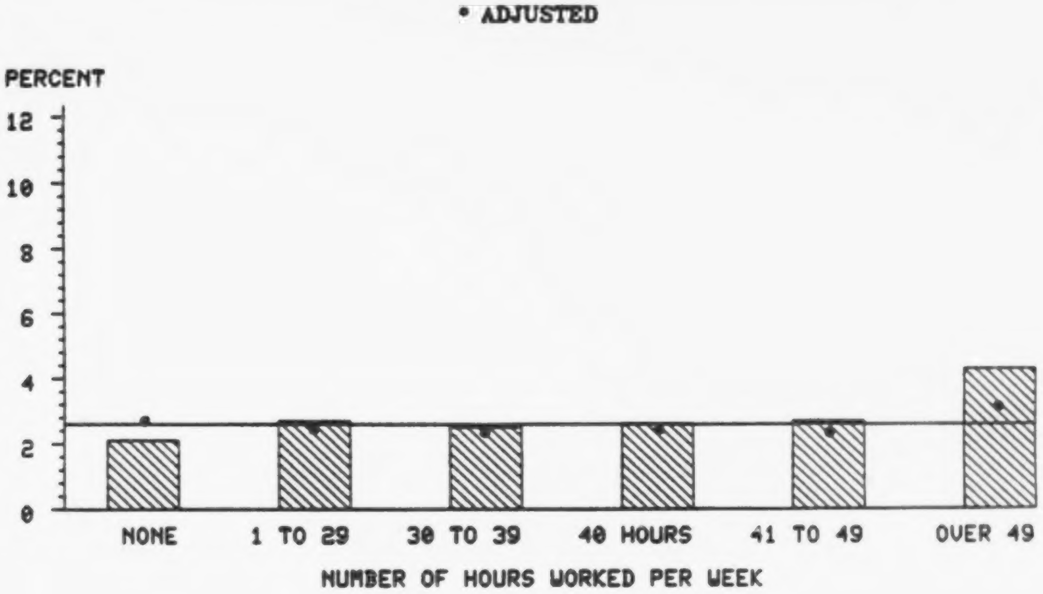
ATTEND OPERA BY MARITAL STATUS



Those never married, divorced, or separated are more likely to attend opera than the average individual. Married or widowed individuals attend at slightly less than average rates.

After adjustment for the effects of the other background variables, the pattern is essentially the same. However, now only separated and never married individuals remain above the national average.

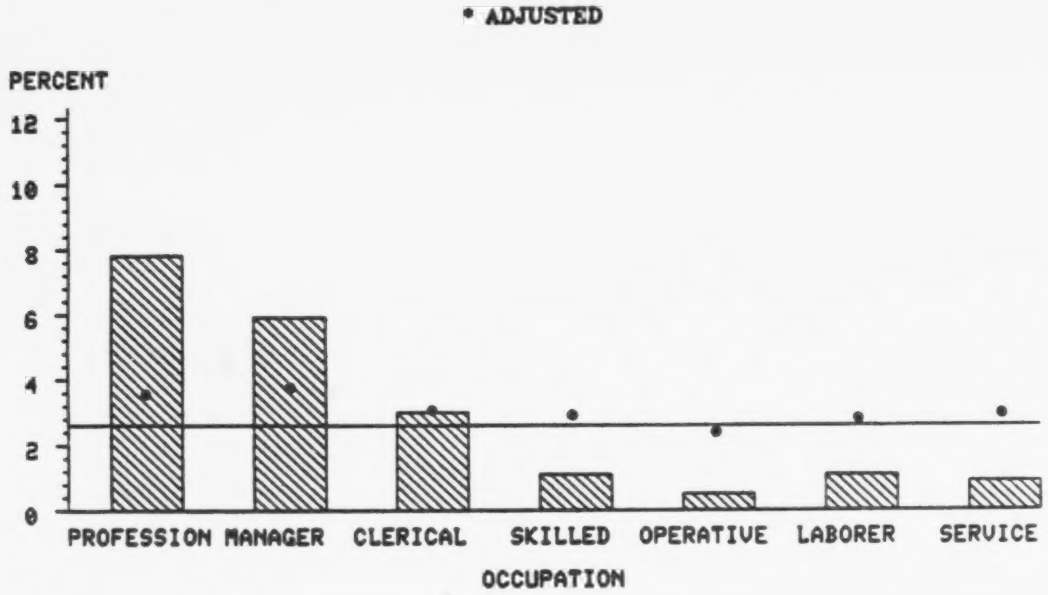
ATTEND OPERA BY HOURS WORKED



Those not working attend at a rate below the national average. People working 50 or more hours are most likely to attend.

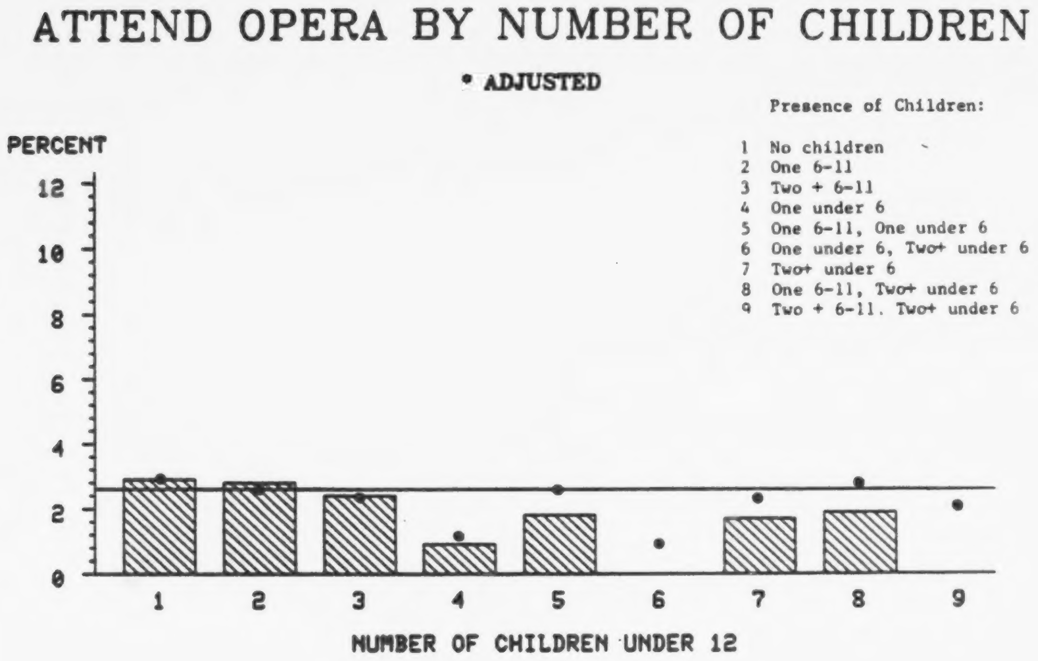
Other factors being equal, attendance rates drop, for example, in the 50 hour or more category of working people, while they rise among people not employed.

ATTEND OPERA BY OCCUPATION



Among occupational groups, professionals and managers stand out as disproportionately more likely to attend opera, at rates roughly twice the average. On the other hand, operatives, laborers, skilled craftsmen and service workers attend at rates notably below the average. Unpaid categories (those not working, those keeping house, students, and the retired) hover about the national average, with students at the highest rate of 4% (not shown above).

After other background factors are held equal, all paid occupations attend at rates matching or exceeding the national average, except operatives and those keeping house (2%) not shown. The higher education level of professionals and managers might have inflated their unadjusted attendance rates, although occupation itself has some explanatory power.



In contrast to childless individuals, those with children generally attend opera at less than the national average. The one exception is households with one child aged 6-11 years.

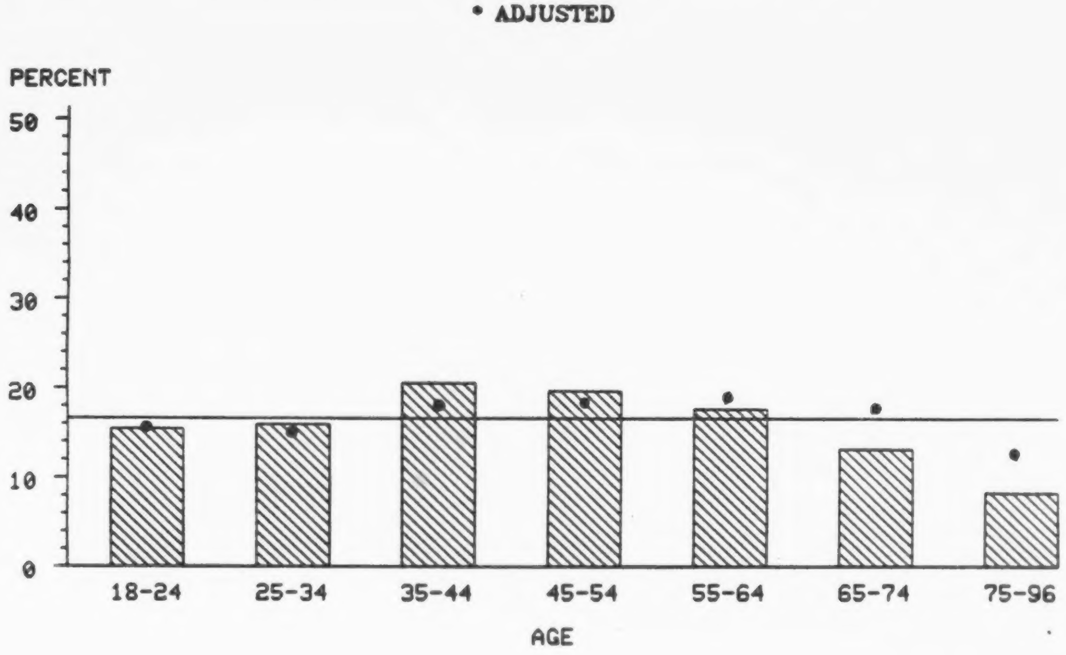
When adjustments are made for the impact of the other background factors, the attendance rate rises for those with children (particularly with younger children), while the rate for those without children in the household falls slightly. Thus, much of the variation in participation is due to other factors, such as age. For example, people with older children tend to be older and age is positively related to attendance.

MUSICAL PLAYS AND OPERETTAS

The best predictors of attending musicals are education, occupation and income (variations of 28 to 37 percentage points).

When other factors are held equal, education and income are the best explanatory factors (variations of 14 to 27 points).

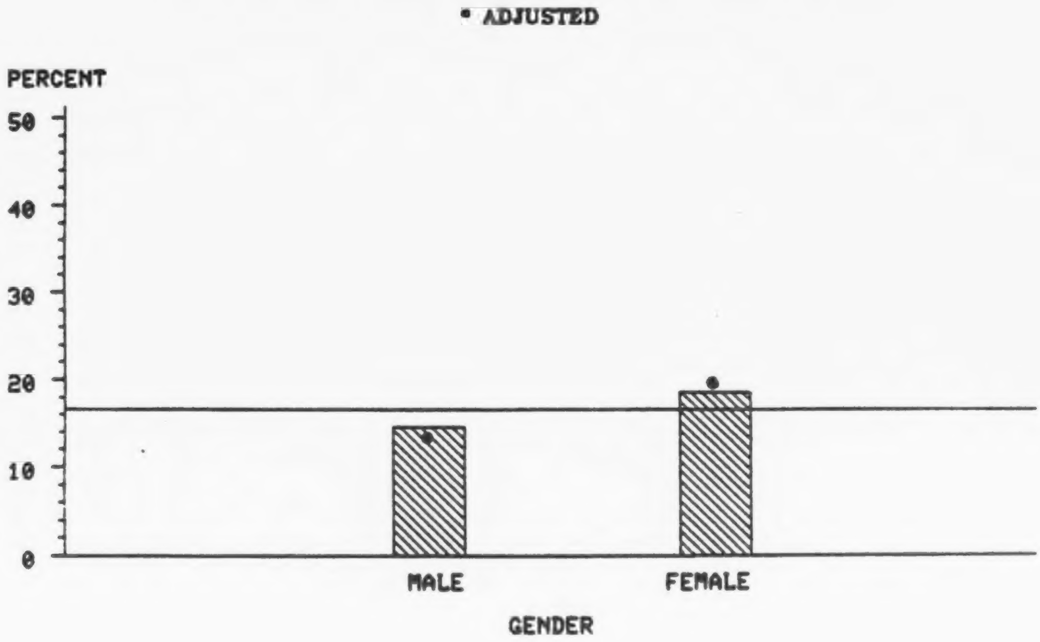
ATTEND MUSICALS BY AGE



Attendance rates for musicals rises to a peak among those aged 35-44, and then falls for older age groups, to where the 75-96 age group is half the national average.

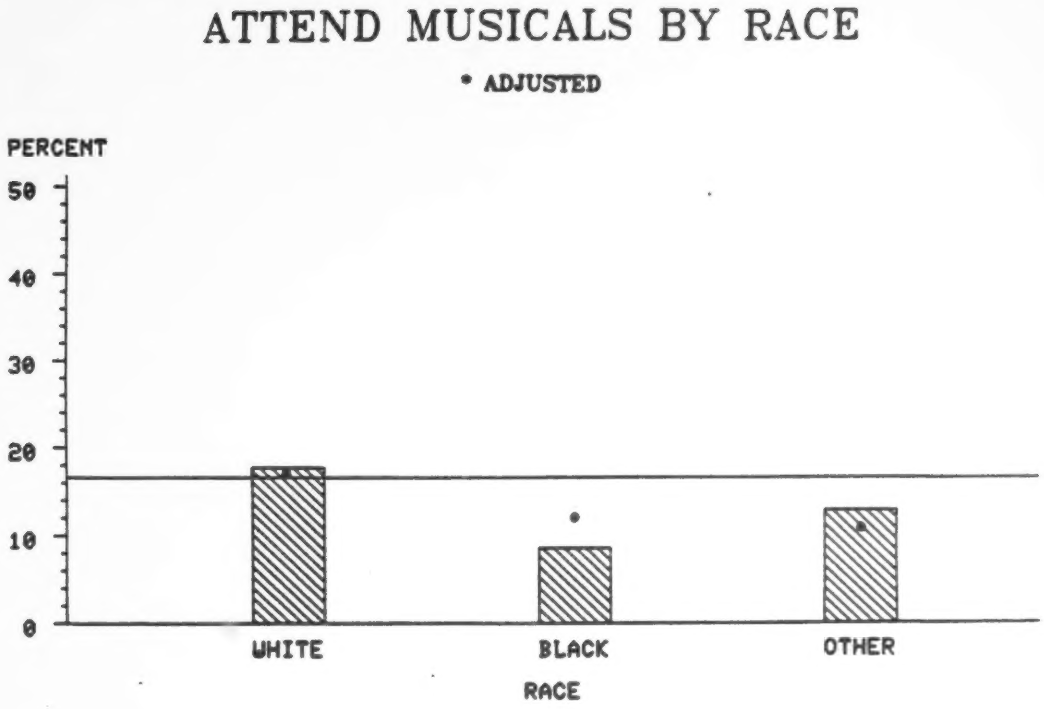
The same pattern holds in attenuated form after controlling for the influence of other factors. Much of the lower rates for the oldest groups is not due to age _per se_, but to other factors like education and income which may be lower in the highest age categories.

ATTEND MUSICALS BY GENDER



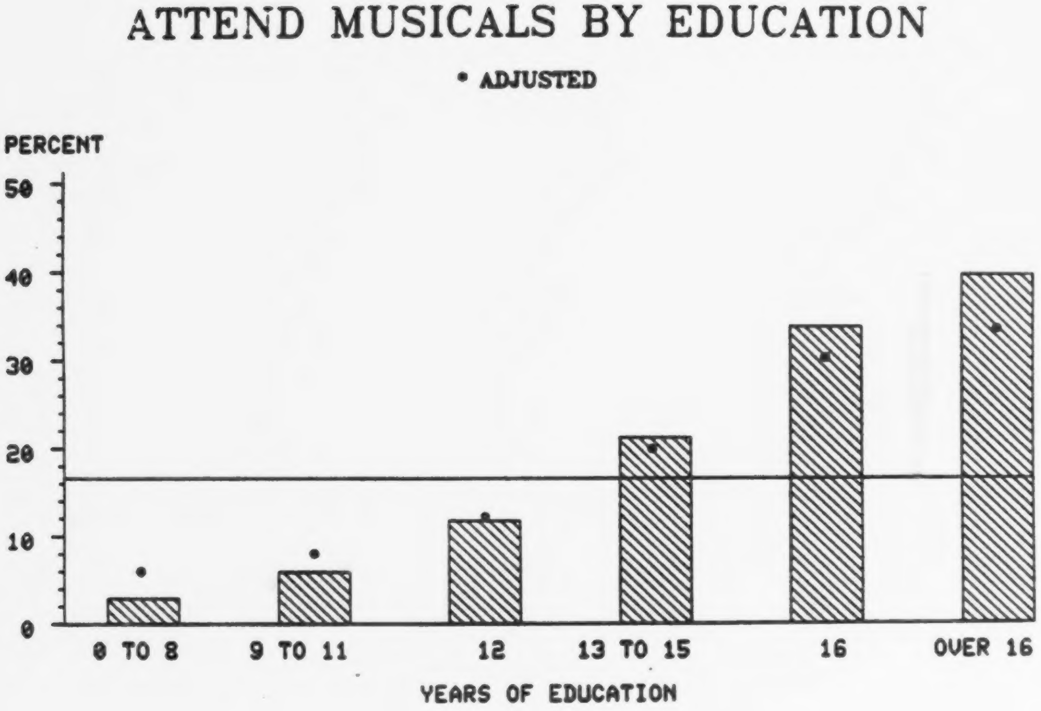
A greater percentage of females than males go to musicals.

When other factors are equalized, the differences between male and female attendance grow more pronounced. The lower education and income levels of females might be important factors in explaining sex differences in attending musicals.



Whites are slightly more likely than average to attend musicals, while blacks and "other" races' attendance rates are lower than the national average.

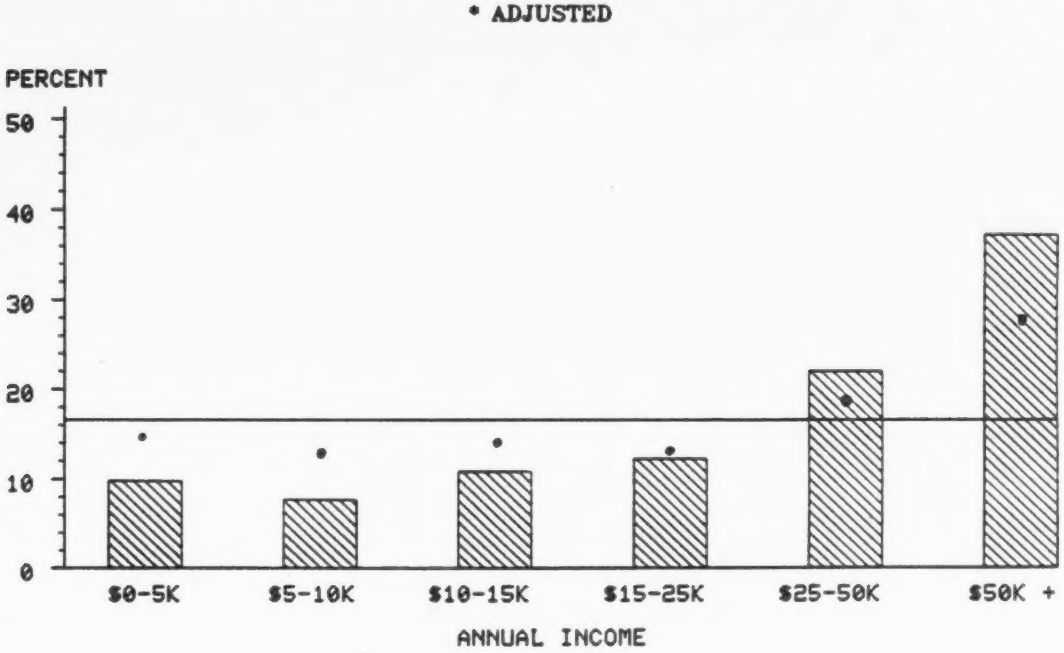
After adjusting for the effects of other background factors, the most noticeable change is a reversal of the rankings of blacks and "other" races. The attendance rates of blacks and "other" races are strongly explained then by other factors (possibly education and income), whereas the attendance rates of whites are largely independent of the influence of the other factors.



Education is a strong predictor of attendance at musicals. Better educated persons are much more likely to attend. The rate crosses the national average with exposure to college education.

The pattern is essentially the same after equalizing other background factors. Education retains its linear relationship to attendance at musical performances and remains an important explanatory factor in and of itself.

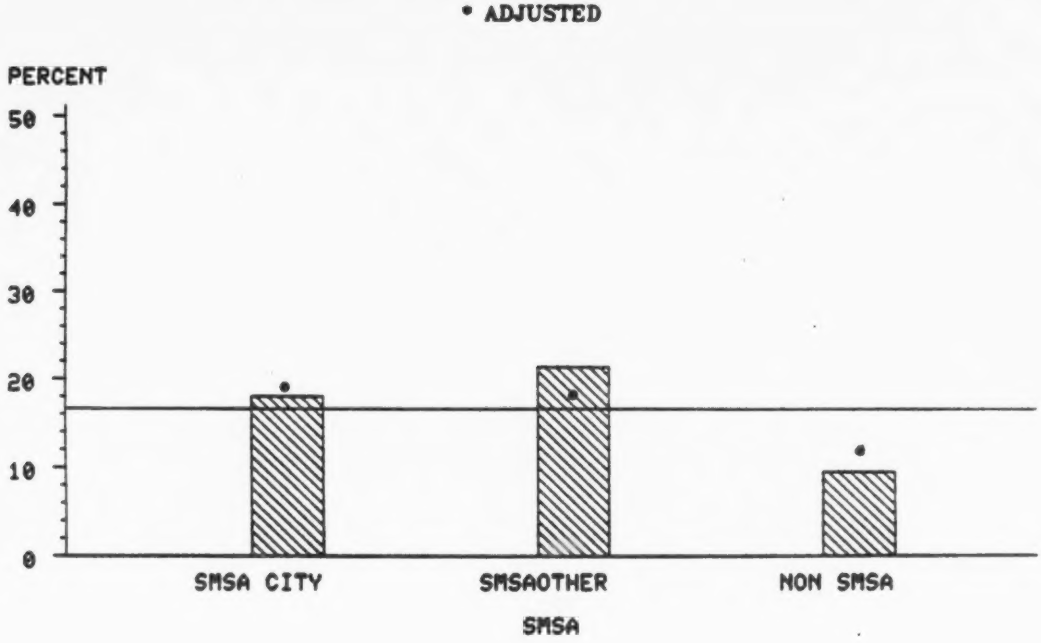
ATTEND MUSICALS BY INCOME



Attendance of musicals rises with income, crossing the national average with the category of $25,000-$49,999. Compared to persons in the lowest income brackets, those in the highest brackets are two to three times more likely to attend.

The same pattern generally holds after adjustment for the impact of other factors, although attendance dips slightly for the $5,000-24,999 groups. The relationship between income and attendance is less strong after underlying factors like education and occupation have been taken into consideration.

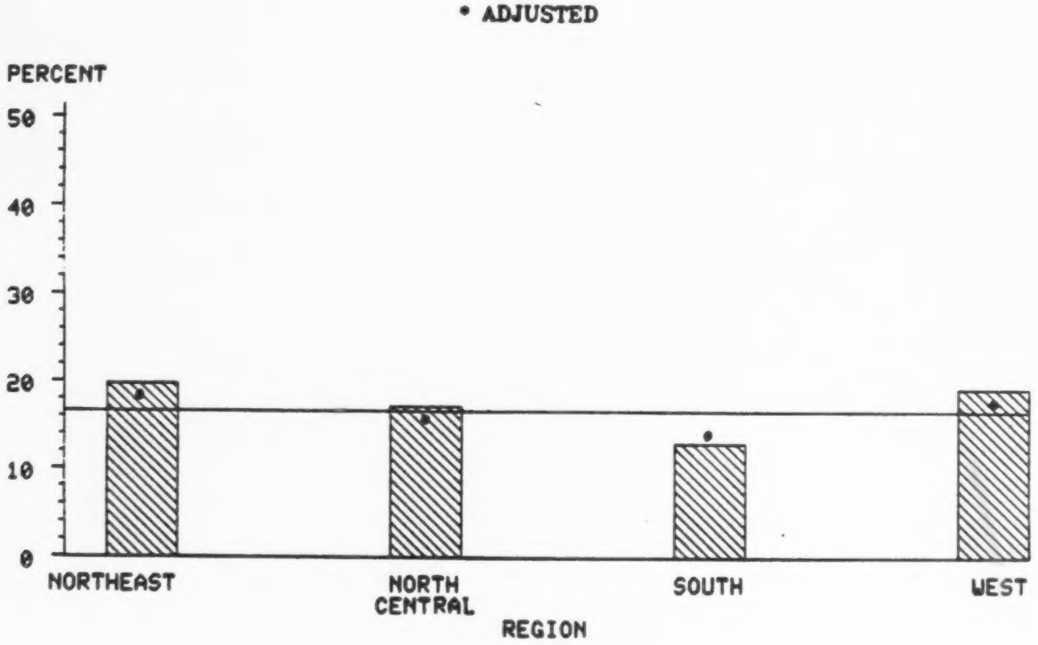
ATTEND MUSICALS BY SMSA



Residents of SMSA's, both inside and outside of central cities, attend musicals at a considerably higher rate than those residing outside of SMSA's.

After adjusting for the effects of other factors, residents of central cities of SMSA's are slightly more likely to attend than are residents of SMSA's not within a central city; residents in non SMSA areas show increased attendance but still fall below the national average. Since musical theater is most often found in urban centers, less access to musical performances might influence this pattern.

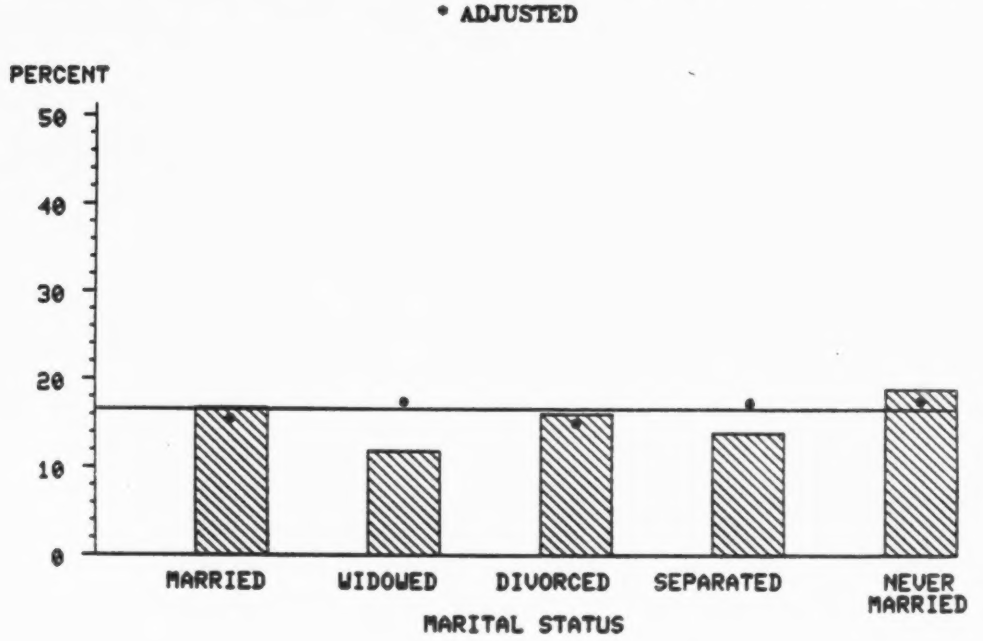
ATTEND MUSICALS BY REGION



Residents of the Northeast and West reported above average attendance at musicals, while residents of the South reported below average attendance.

Only the Northeast figure exceeds the national average after MCA control.

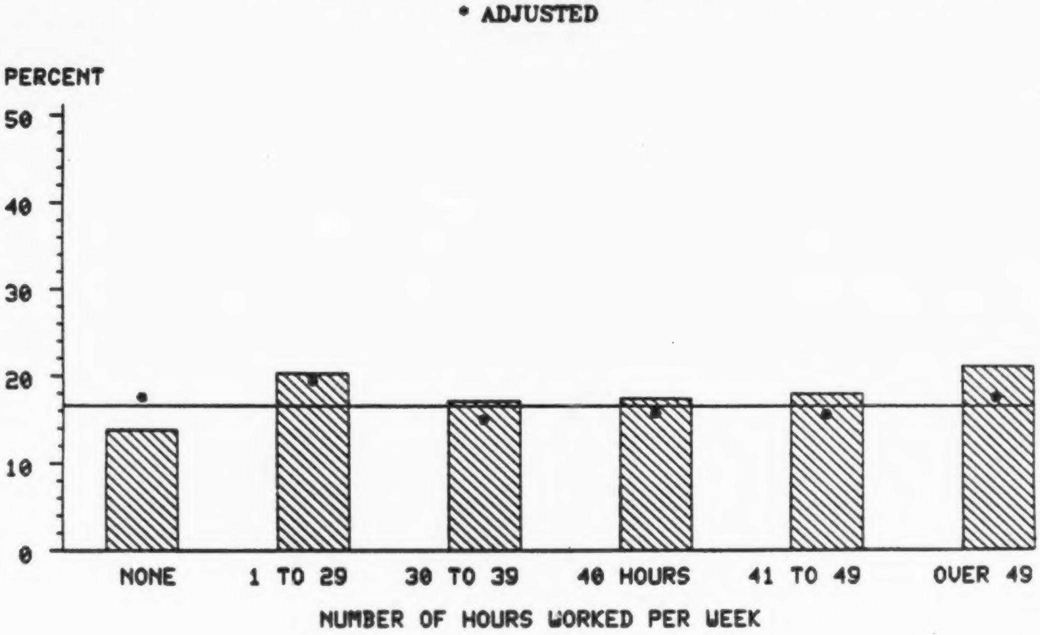
ATTEND MUSICALS BY MARITAL STATUS



The married and the never married are more likely to attend musicals than the average person. Widowed, divorced and separated people attend less than the national average.

When other factors are held equal, all groups, except for those married and divorced, demonstrate roughly the same above average rate of attendance. The low unadjusted rates for widowed and separated people are probably due to related factors like income, age and education.

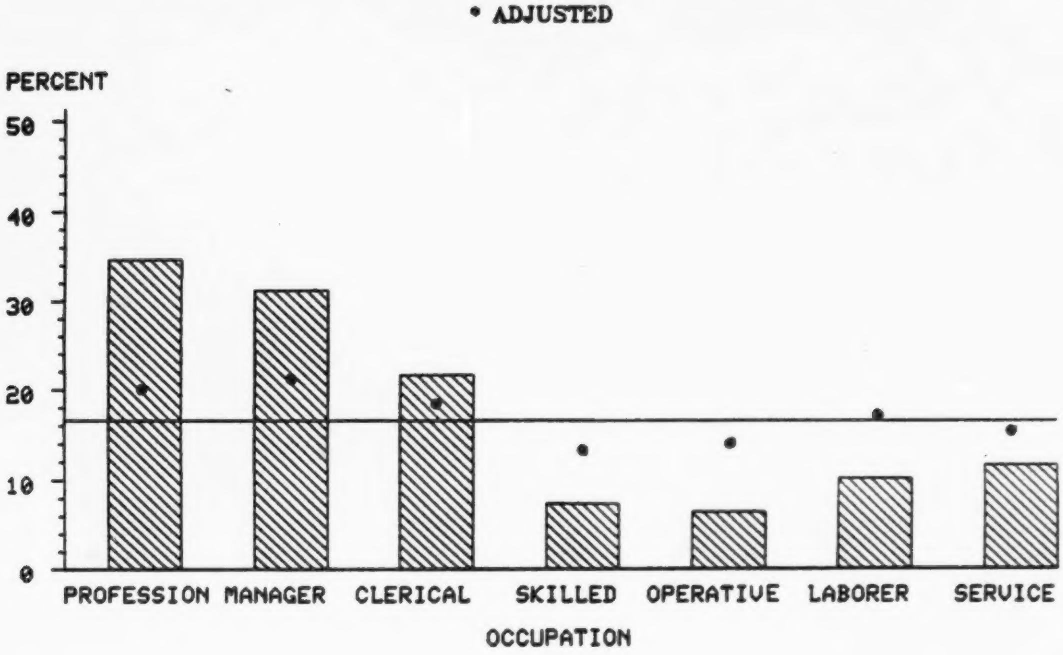
ATTEND MUSICALS BY HOURS WORKED



Employed people with long work hours are no less likely to attend musicals than those who work 30-40 hours per week. People with no work hours are least likely to attend musicals, and people working up to 29 hours a week are most likely to attend.

However, after adjustment for other factors (such as education and age), people with no work hours are most likely to attend musicals. Those with shortest and longest work hours are also slightly above average in attending musicals, as are those working 1 to 29 hours a week. Controlling for other background factors reveals an overall U-shaped or curvilinear relation between work hours and attending musicals.

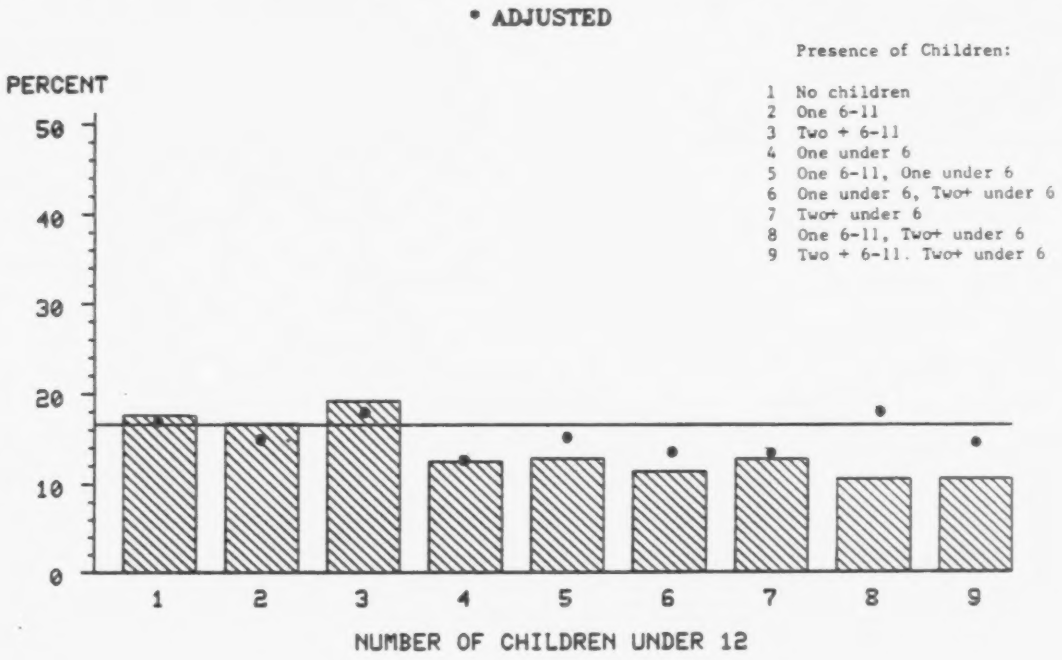
ATTEND MUSICALS BY OCCUPATION



Managers, professionals, and sales and clerical workers have the highest rates for attending musicals. Students, not shown in this figure, show a very high rate of 23% attendance. All other occupational groups have below average rates of attendance.

When other background factors are taken into consideration, these differences between occupational groups lessen. Professionals, managers and students show somewhat lower rates of attendance. Sales persons and clerical workers show little change. Skilled craftsmen and operatives remain below the national average, as do two groups not shown: those not working and those keeping house.

ATTEND MUSICALS BY NUMBER OF CHILDREN



Those with no children, those with one child 6-11, and those with two or more children 6-11 tend to have higher attendance rates for musicals than other groups, particularly those with younger children.

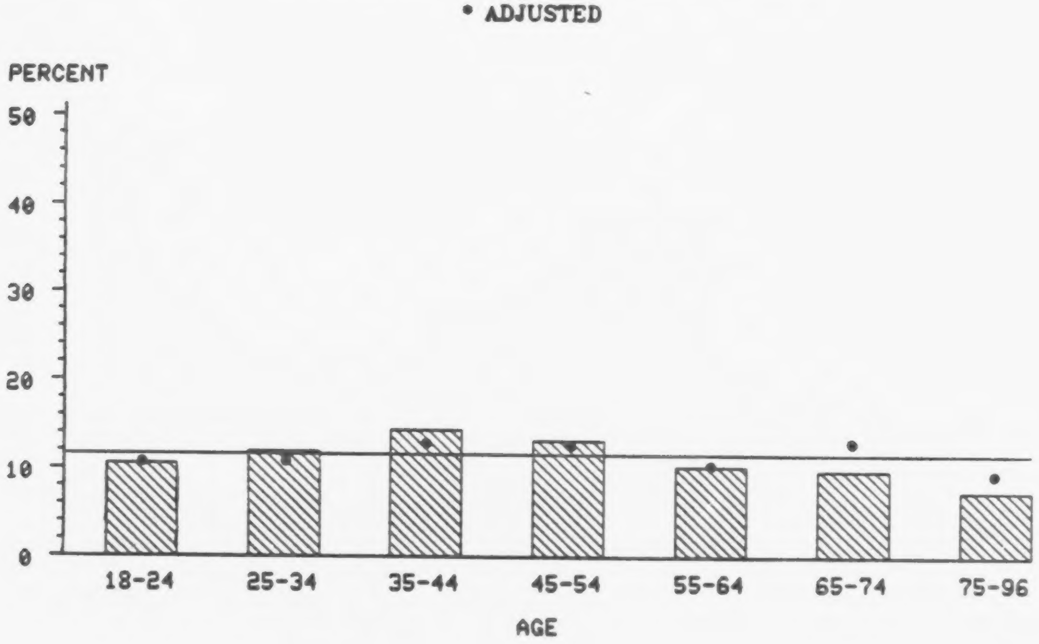
Adjustments for the effects of the other factors only marginally change the overall pattern. Clearly, presence of children tends to inhibit attendance at musical performances.

NON-MUSICAL PLAYS

Education, occupation and income are the most important predictors of attending stage plays (variations of 24 to 35 percentage points).

After adjustments for the influence of other factors, education remains by far the best predictor (variation of 28 points).

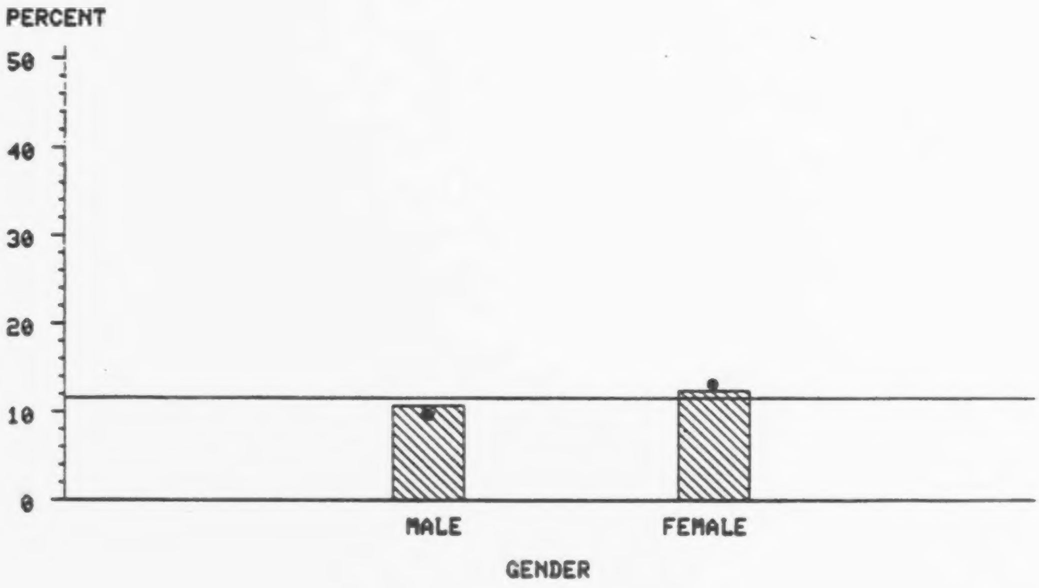
ATTEND PLAYS BY AGE



Middle-aged persons, those in the 35-44 age category, are most likely to attend plays. The rate also rises above the national average among the 45-54 age group and falls below average in the 65-74 and 75-96 categories.

However, if the effects of the other background factors are removed, the attendance rate is considerably higher among the older segments of the population, and the earlier curvilinear relationship between age and attendance disappears. This effect is probably a result of taking the often lower income and education of older people into account.

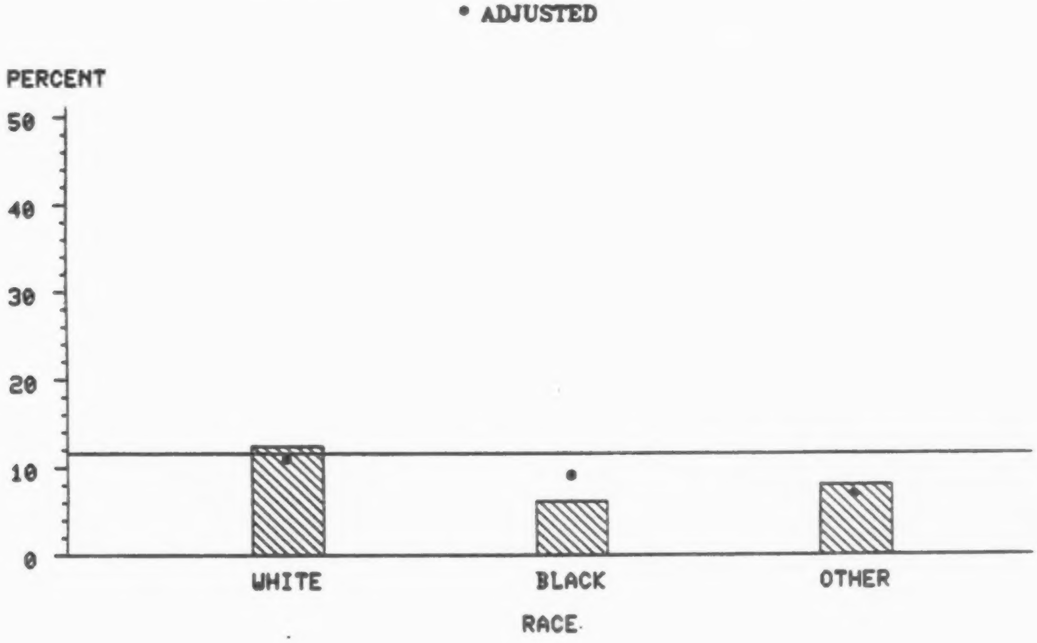
ATTEND PLAYS BY GENDER



Females are more likely to attend plays than are males.

When other factors are held constant, females are even more likely to attend than are males. Once again, differential income and education may have suppressed the original relationship between gender and play attendance in the unadjusted figures.

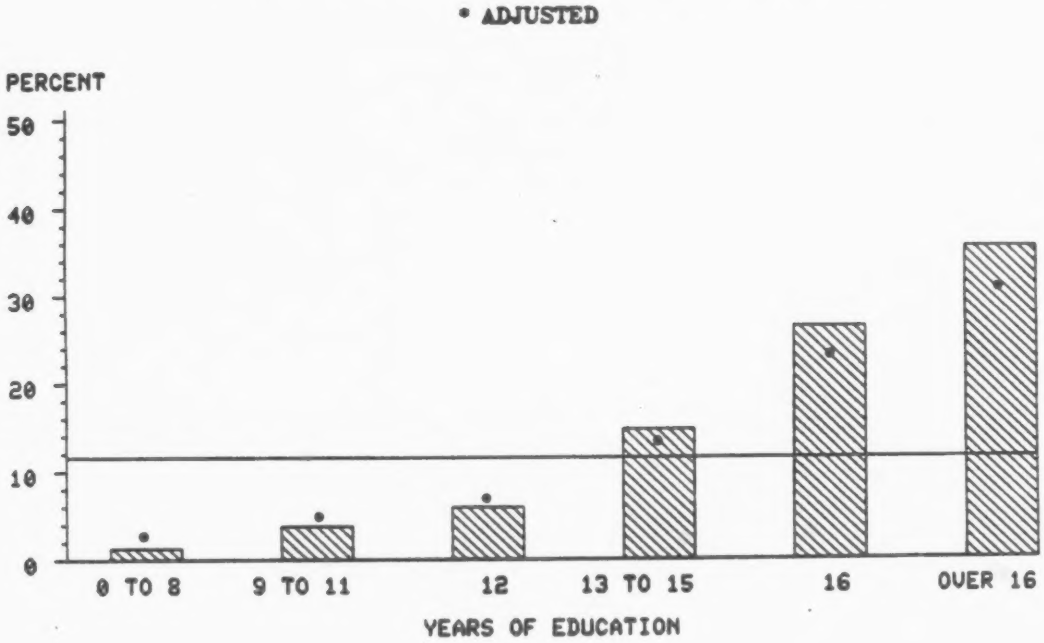
ATTEND PLAYS BY RACE



Whites attend plays at a rate slightly higher than the national average, while blacks and "other" races attend at rates of almost one half the national average.

When other factors are held equal, however, the positions of blacks and "other" races are reversed, although both remain below the national average. The white attendance rate is only slightly decreased. Attendance rates of blacks and people of "other" races are more strongly influenced by background factors than are white attendance rates.

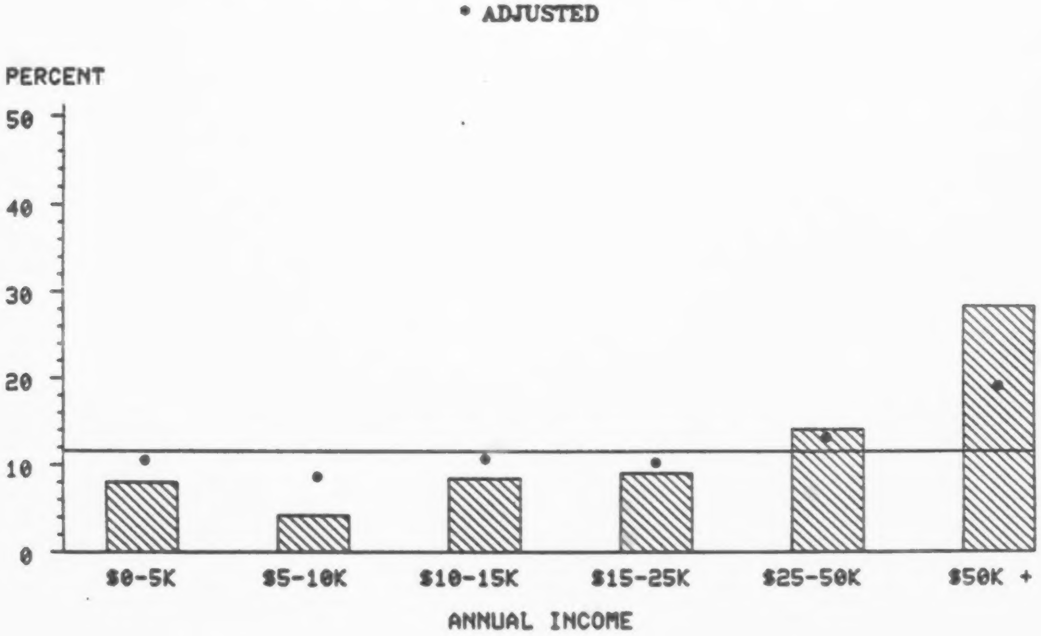
ATTEND PLAYS BY EDUCATION



Attendance rates rise sharply with education. A large increase occurs between high school graduates and those with some college. The strength of education as a predictor is evident by comparing the extremes: those with a grade school education participate at about one-sixth the national rate; those who attended graduate school participate at over three times the national average.

This pattern is essentially the same after controlling for the effects of other factors, and education maintains its linear relationship with attendance at plays. Education is a strong factor in explaining such attendance, independent of other background factors.

ATTEND PLAYS BY INCOME

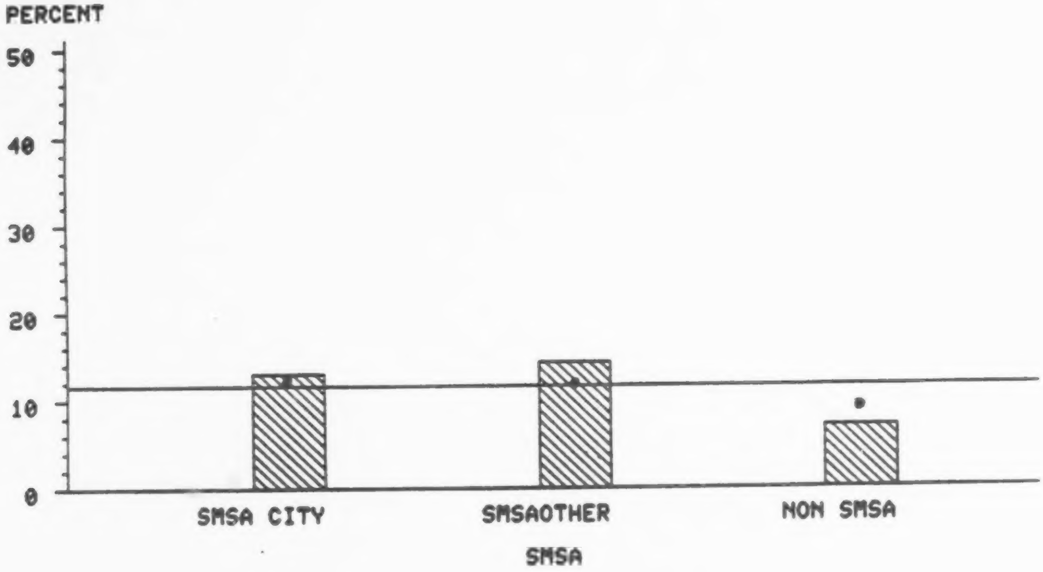


Although those with incomes under $5,000 attend at a slightly higher rate than those earning $5,000-$9,999, the overall trend is one of increased attendance as household income rises. However, only income brackets over $25,000 are associated with above average attendance rates.

A small yet noticeable change after adjusting for the other factors is that those earning less than $5,000 have a higher attendance rate than those earning $5,000 to $25,000. The other income categories also show higher rates of attendance, indicating that other factors were suppressing attendance in these categories in the unadjusted figures. (Only the top income category showed less attendance when other factors were considered.)

ATTEND PLAYS BY SMSA

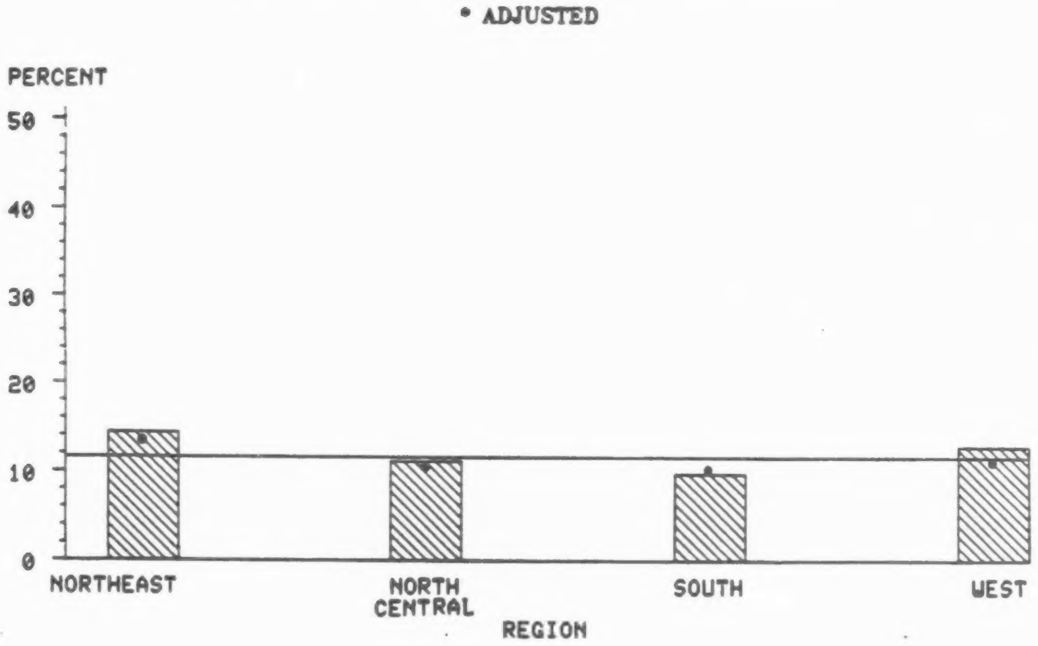
• ADJUSTED



Residents of SMSA's attend at a rate about 1-3% above the national average; residents outside of SMSA's, where performances may be less available, attend at a rate about 4% below the national average.

After adjustments for other factors, there is a reversal for those in SMSA areas, while they stay above the national average. Those outside SMSA's attend at a lower rate after adjustment.

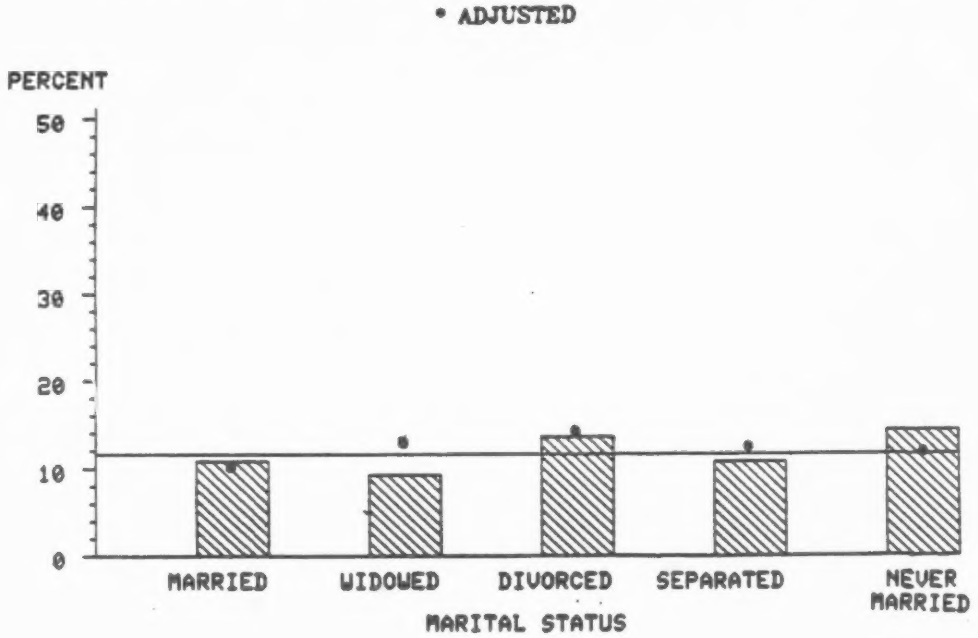
ATTEND PLAYS BY REGION



Residents of the Northeast report above average attendance at stage plays, both before and after MCA control.

After MCA control, residents of the South are equivalent to the other regions in attending live stage plays.

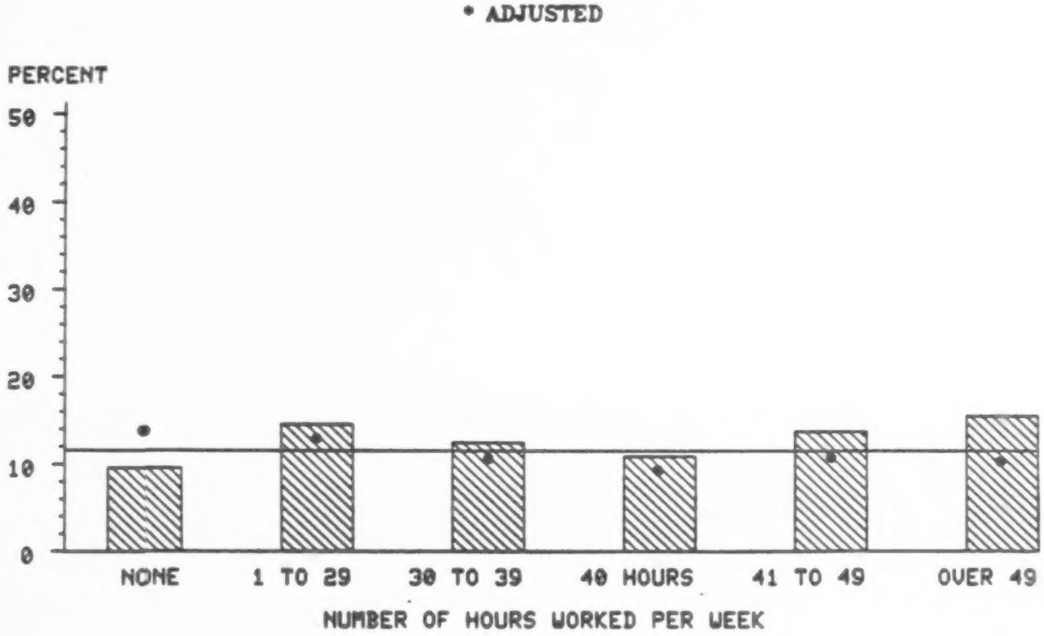
ATTEND PLAYS BY MARITAL STATUS



Divorced and never married persons are most likely to attend plays. On the other hand, separated spouses, widowed people and those married attend at below average rates.

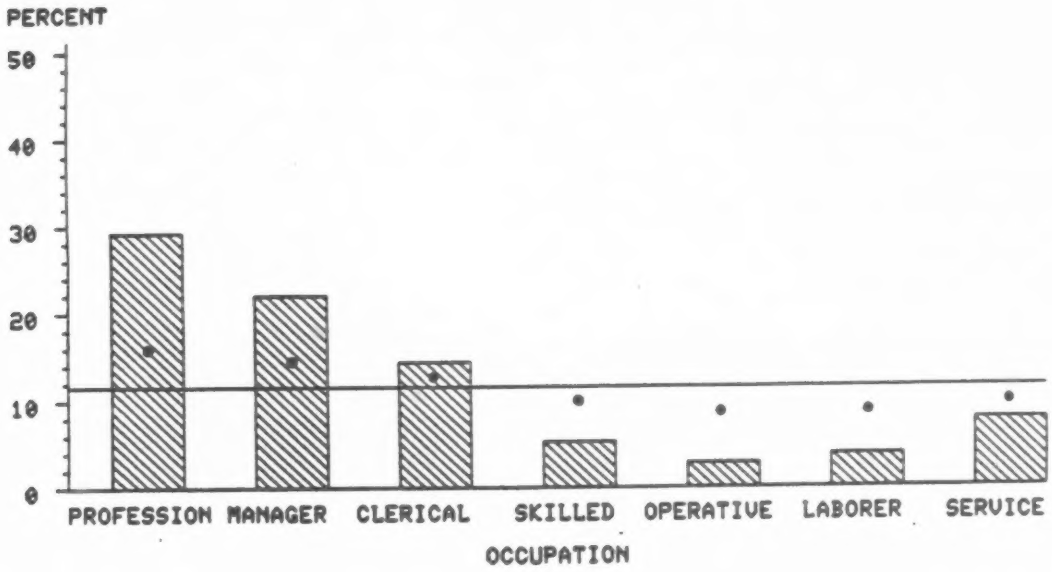
After adjusting for the impact of other factors, widows and separated spouses have much higher rates. Their originally lower rates are apparently suppressed by other factors like age and income.

ATTEND PLAYS BY HOURS WORKED



Those not working show the lowest attendance rates. Those working fewer hours and those working more than 50 hours had higher attendance rates for plays.

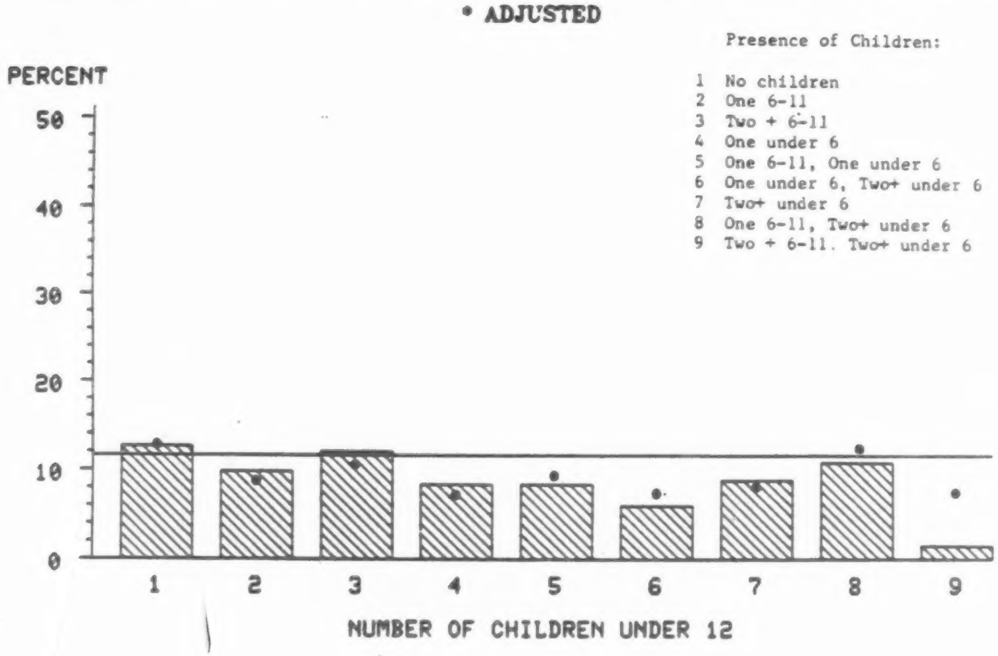
When other factors are held constant, the curvilinear relation persists, but those not working any hours becomes the category most likely to attend, while all other groups show decreased attendance.



ATTEND PLAYS BY OCCUPATION

Professionals, managers, sales and clerical workers, and students (not shown in this figure (18%) are overrepresented in the audiences of plays. All other groups attend at below average rates.

After adjustment for other background variables, these differences diminish as all groups cluster nearer the national average. Student participation drops to 13%, but stays somewhat above the national average. It is likely that differential income and education among occupational groups accounts for much of the original (unadjusted) association.



ATTEND PLAYS BY NUMBER OF CHILDREN

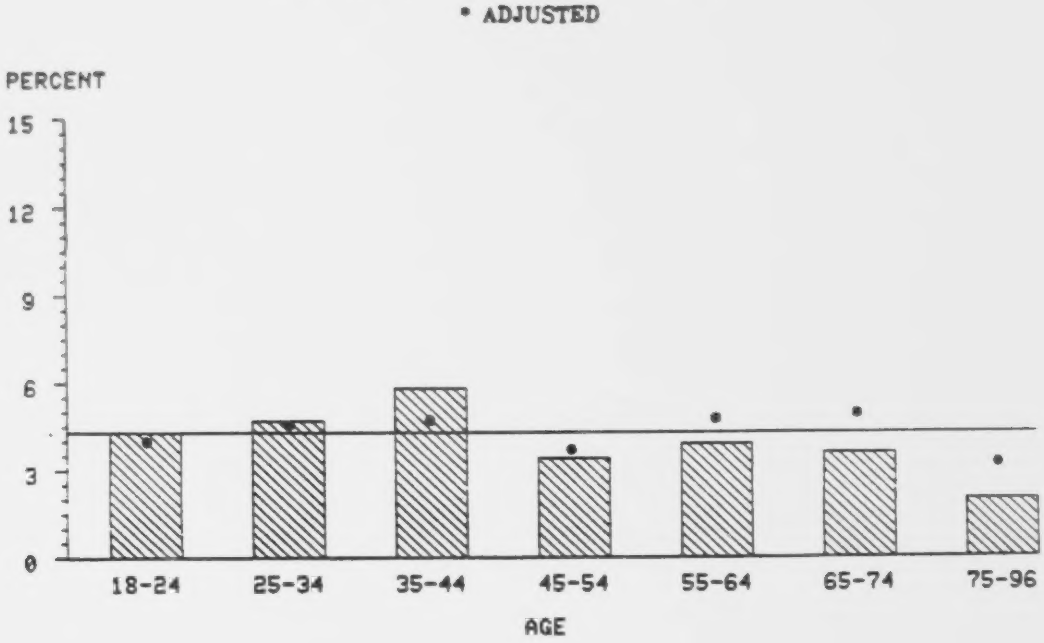
Compared to people without children in their households, people with children are generally less likely to attend plays. People with two or more children aged 6-11 are the only group above the national average of people with children.

When other factors are controlled, the differences between individuals without children at home and those with children are considerably lessened (except for the category with two younger children and one older one). This means other factors like age were suppressing attendance of individuals with children at home in the original figures.

BALLET

The best predictors of attendance of ballet performances are education, income and occupation (variations of 9 to 14 percentage points).

When other factors are held constant, education remains the most important predictor (13 points); sex, occupation, and presence of children also play a role.

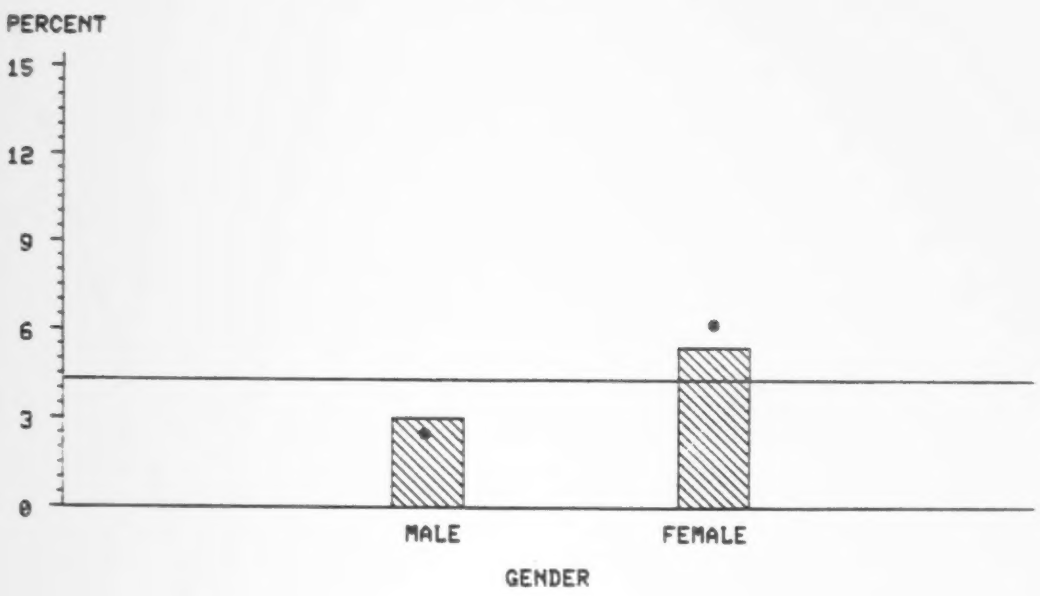


ATTEND BALLET BY AGE

The attendance rate for ballet performances rises with age up to the 35-44 age group, then falls below the national average for older groups.

After adjustments for the impact of the other factors, these differences between age groups are generally lessened, although the 55-74 group rises. The lower educational and income levels of the oldest categories might suppress their attendance in the original unadjusted rates.

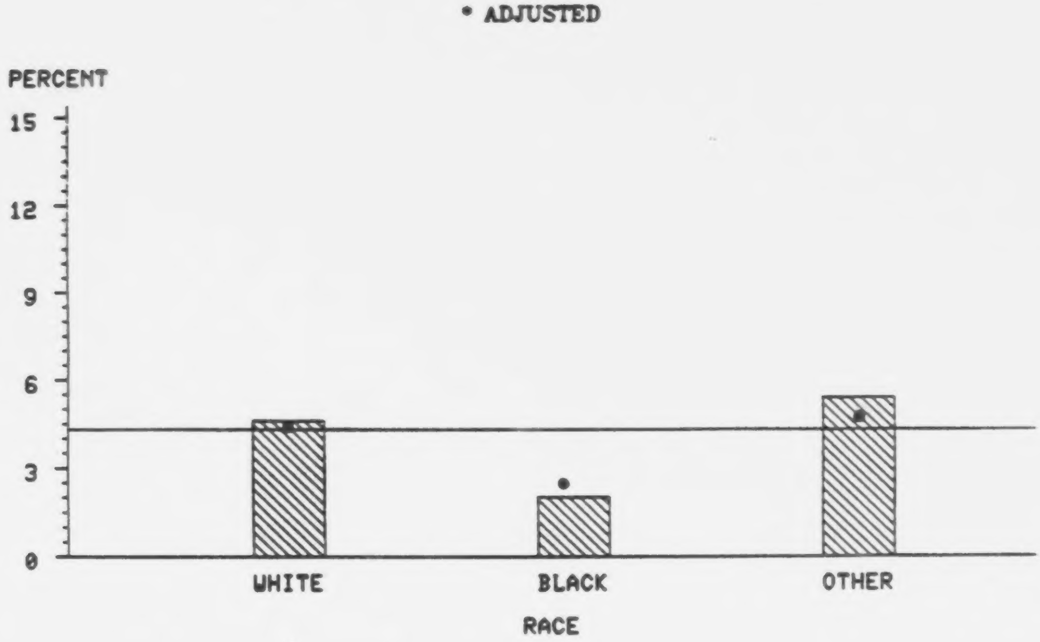
ATTEND BALLET BY GENDER



Women attend ballet at a much higher rate than men, with men attending at about two-thirds the national average and women attending at about one-and-one-quarter the national average.

When other factors are controlled, gender becomes an even stronger predictor of attendance. Indeed, it moves from the eighth to the second best predictor of ballet attendance. The lower education and income levels of women may have suppressed attendance, and statistical controls demonstrate the strength of the association between sex and attendance at the ballet.

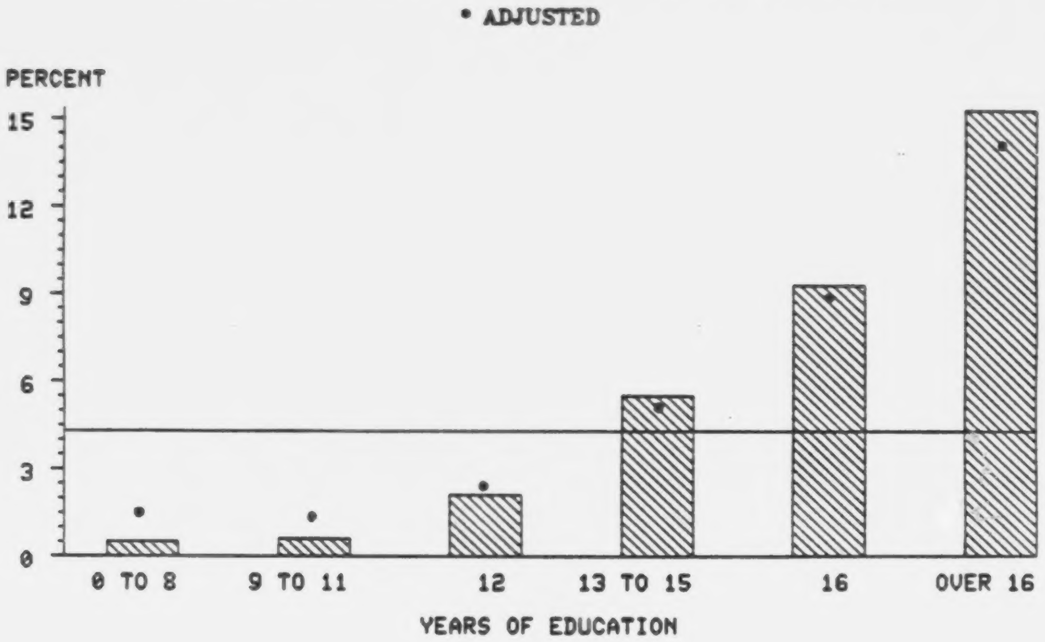
ATTEND BALLET BY RACE



"Other" races are the highest attenders of ballet at about one-and-one-quarter the national average; while whites attend at a rate just above the national average. Blacks attend at less than half the average.

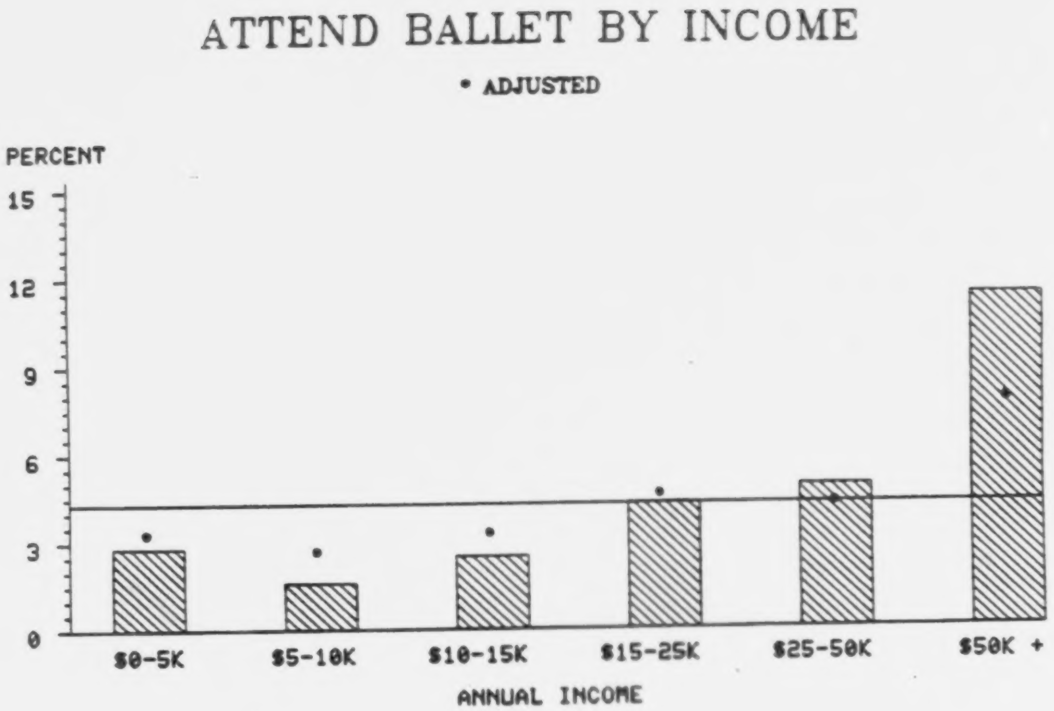
After adjustment for other factors, trends stay the same with both "other" races and whites just above the national average. The rate for black attendance rises slightly, but still are about half the average.

ATTEND BALLET BY EDUCATION



Attendance of ballet performances occurs at progressively higher rates with increasing education. The extreme categories show great differences; those with only a grade school education attend at a tenth of the national average rate, while those who attended graduate school participate at a rate of over three times the national average.

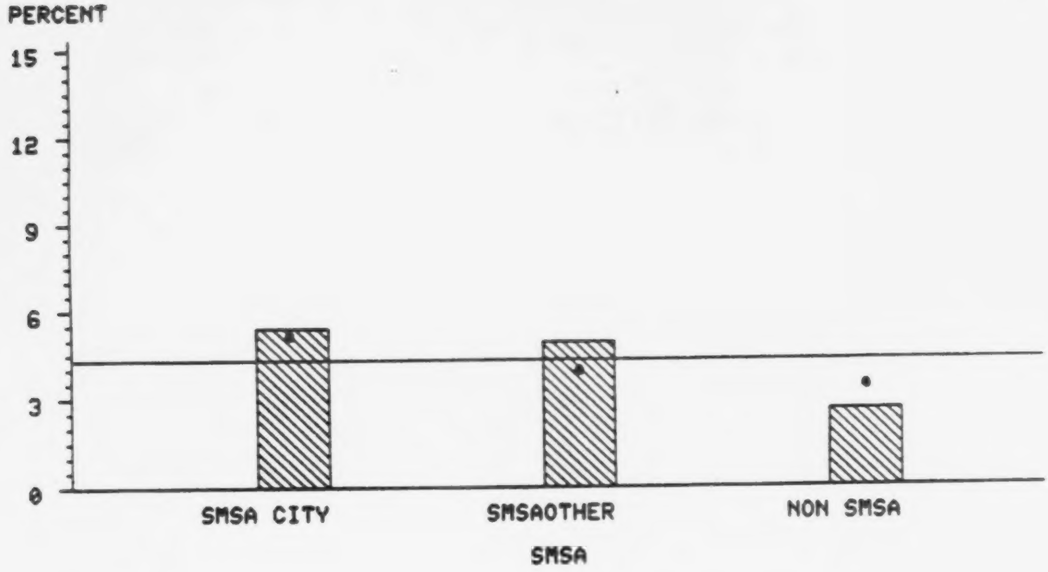
The trend is essentially the same after adjustment for the influence of the other factors. Education again proves itself a powerful explanatory variable.



The attendance rates for ballet performances generally rise among higher income brackets. Those earning $5,000-$9,999 attend at half of the national average rate, while those earning $50,000 and over attend at over twice the average rate.

Except for the highest income bracket, after the effects of the other factors are statistically removed, attendance rates are similar for all income brackets. Other factors somewhat suppress the attendance rate of those with lower incomes and, conversely, inflate the attendance rate of those with higher incomes. Education and its close association with income probably accounted for much of the apparent relationship between income and attendance. In general, income is only a good explanation of attendance when contrasting the highest bracket with all others.

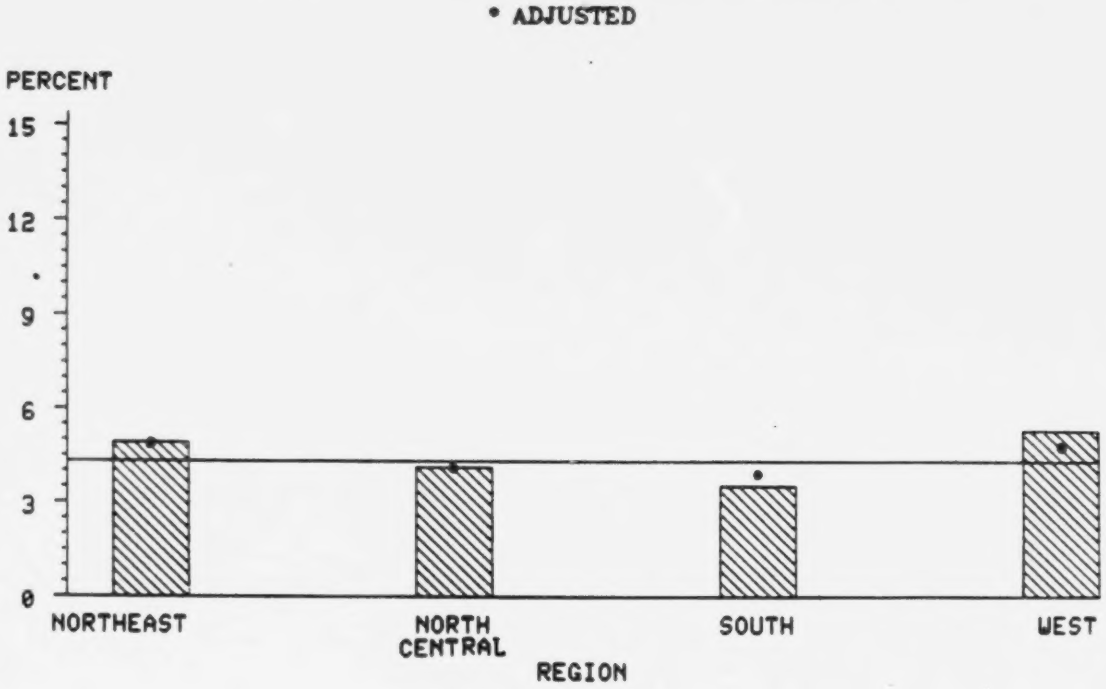
ATTEND BALLET BY SMSA



Residents in SMSA's participate at about .5-1% above the national average. Those residing outside of SMSA's attend at about 2% below the national average.

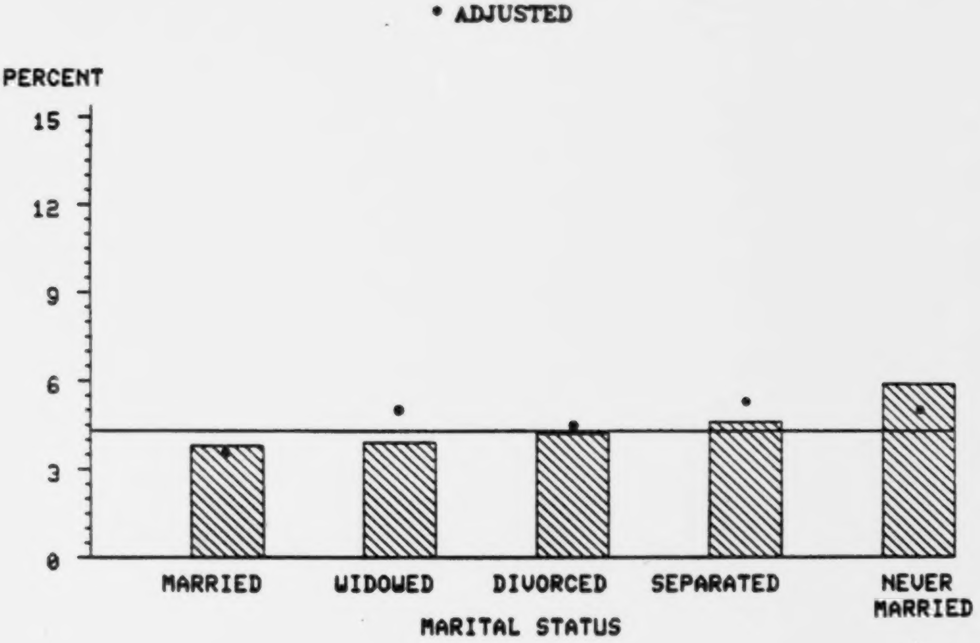
When other factors are taken into account, these differences lessen. Those residing outside of central cities within SMSA's and those residing outside of SMSA's move closer to the national average. Nevertheless, those living outside of SMSA's attend ballet at clearly lower rates, which suggests that location has an effect on attendance that is independent of other background factors. As with opera, the availability of ballet performances is probably much greater in urban than in rural areas.

ATTEND BALLET BY REGION



Regional differences in attending ballet performances are not significant.

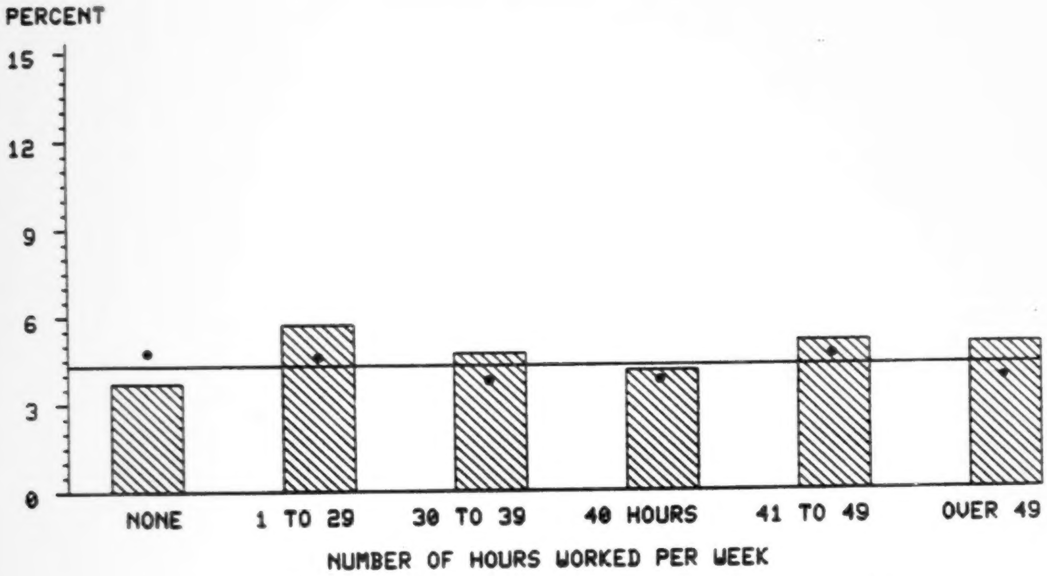
ATTEND BALLET BY MARITAL STATUS



Those never married are markedly more likely to attend ballet performances at a rate of over 2% above the national average. Divorced and separated individuals also attend at a rate above the average; while those married or widowed fall below the average.

When other factors are held constant, the widowed and separated attend at rates above the national average. Those married are the only group to stay below the national average. However, attendance by those never married remains unchanged when other factors are taken into consideration.

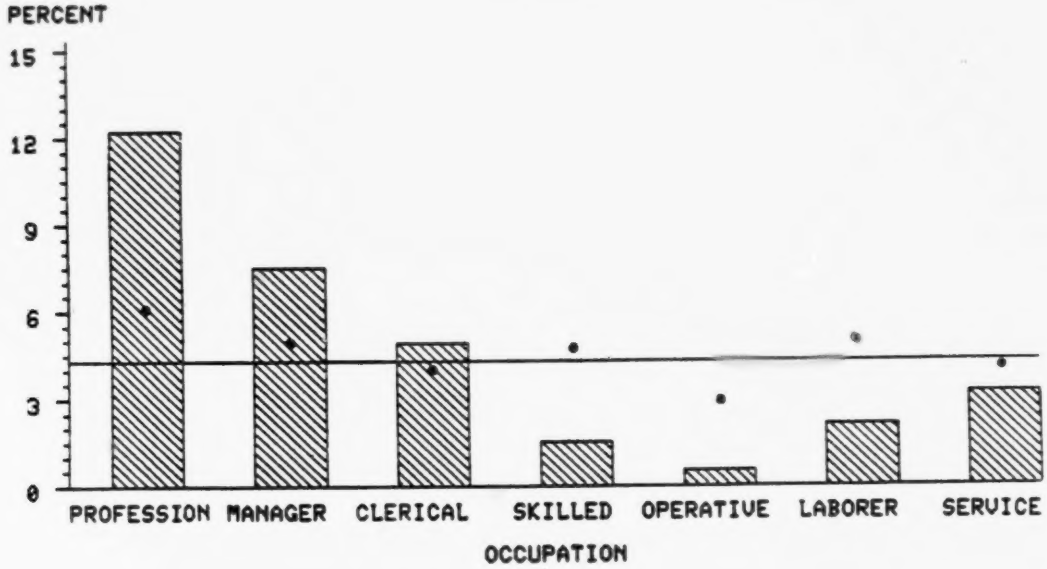
ATTEND BALLET BY HOURS WORKED



Those working no hours are less likely than the average person to attend ballet performances; those working less or more than 40 hours are more likely than average to attend, while those working 40 hours attend at a rate just below average.

If other factors are equalized, however, those working no hours would attend at the highest rate. Possibly, this group's lower income was acting to suppress their attendance before statistical adjustments were made. Other categories show less attendance when other background factors are controlled.

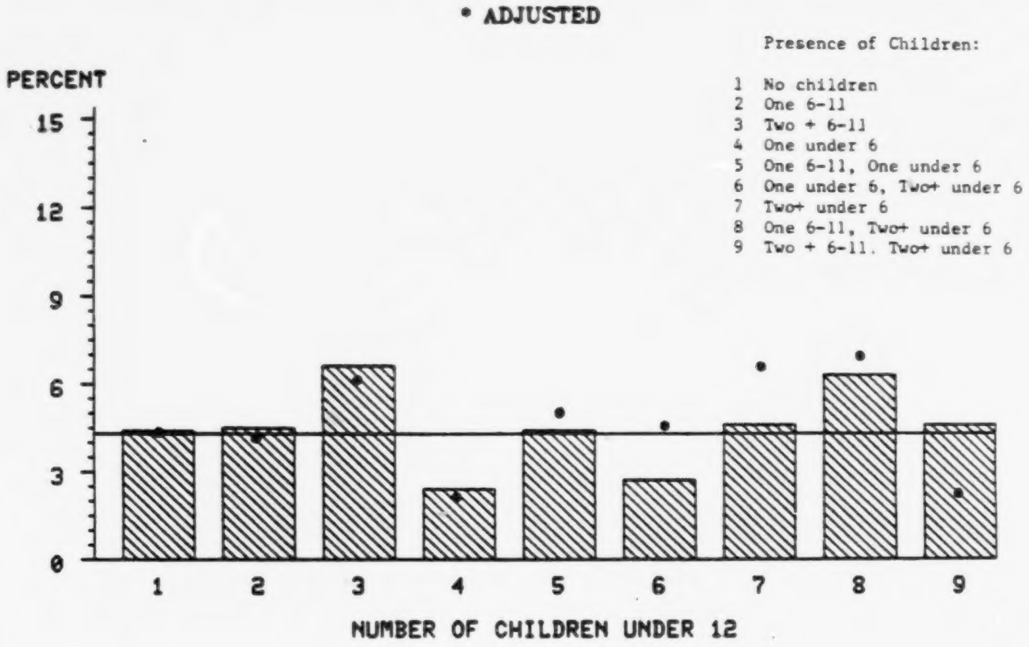
ATTEND BALLET BY OCCUPATION



Among professionals, managers, sales and clerical workers, attendance at the ballet occurs at the highest rates. Students, not shown above also attend at a high rate (8%). On the other hand, blue-collar occupational groups attend at below average rates, as do other categories not shown above: those not working (3%), those keeping house (3%), and the retired (2%).

However, when other background factors are controlled for, professionals, managers, and students (5%, not shown above) show lesser attendance rates, while blue-collar employees, service workers, and retired people (4% not shown above) rise to meet or exceed the national average. Only operatives, homemakers and the retired remain below average after statistical adjustments are made (at 3%, 3% and 4% respectively). Income and education are likely to account for this pattern of findings.

ATTEND BALLET BY NUMBER OF CHILDREN



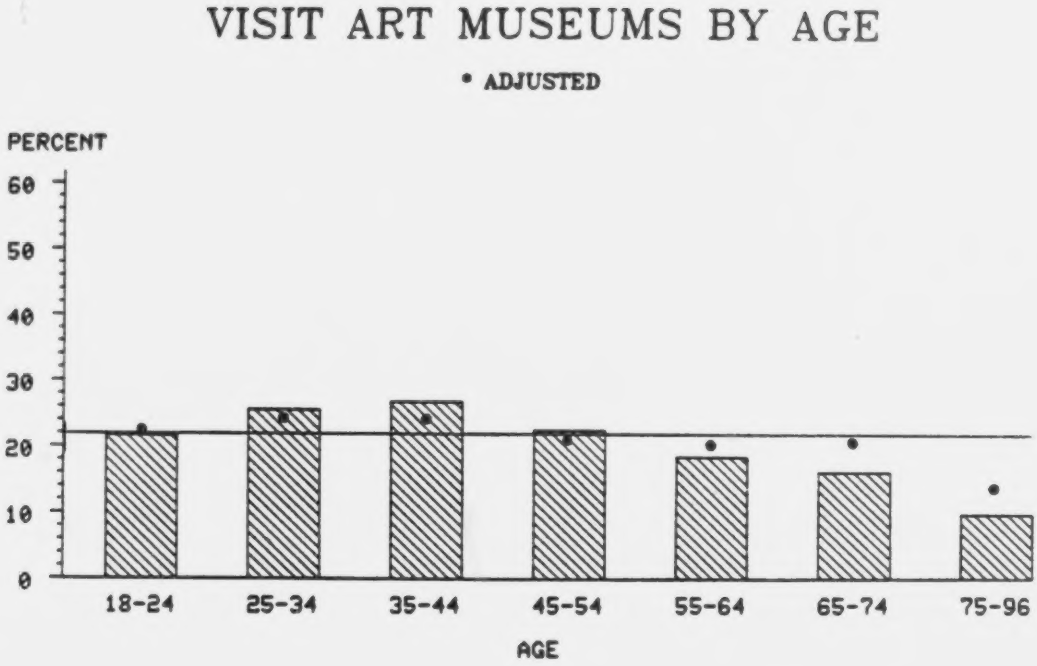
Those with no children attend at a rate slightly above the average. Although those with children show great variation above and below the average rate, those persons with very young children tend to have the lowest rates; and those with two older children attend at the highest rate.

If other factors are held constant, the same general pattern appears although the attendance rates for those with children tend to increase relative to the average; especially for those of two or more children. Presence of children generally inhibits attendance at the ballet, although this relationship is complex and other background factors like sex and occupation also influence attendance.

ART GALLERIES AND MUSEUMS

The best predictors of attendance of art museums are education, occupation, and income (variations of 33 to 52 percentage points).

After adjustment for other factors, the best predictor is education (variations of 40 points), with some race and income groups showing high or low participation as well.



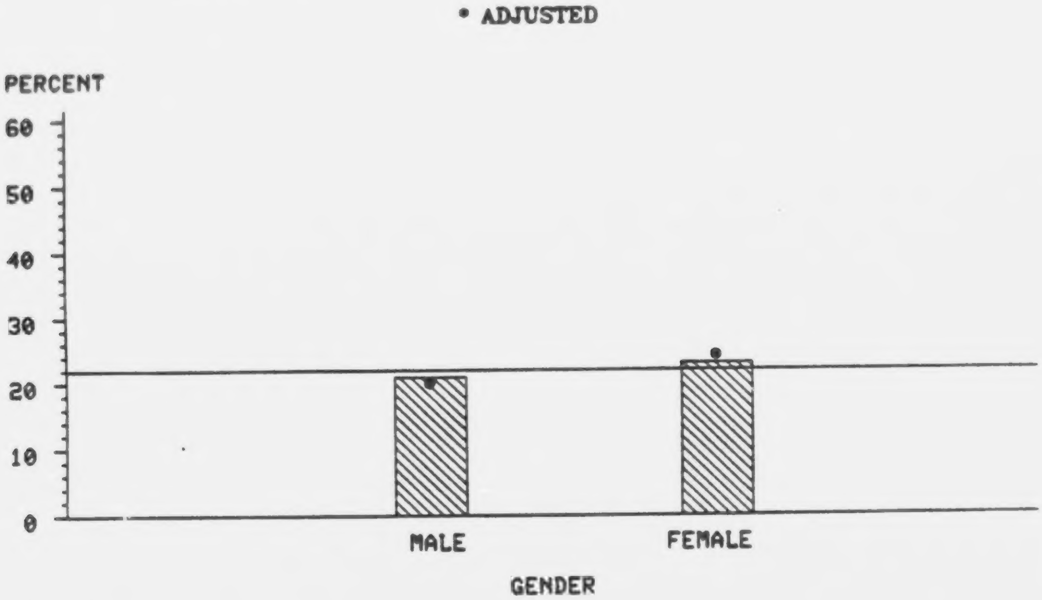
VISIT ART MUSEUMS BY AGE

• ADJUSTED

Attendance at art museums rises, then peaks for those aged 35-44. Attendance then quickly decreases with those 55 and older attending at a rate lower than average.

When the influence of other factors is removed, the curvilinear trend persists, but in an attenuated form, although there is a slight dip for those aged 55-64. Much of the attendance differences between age groups is then attributable to other background factors, such as differential education and income.

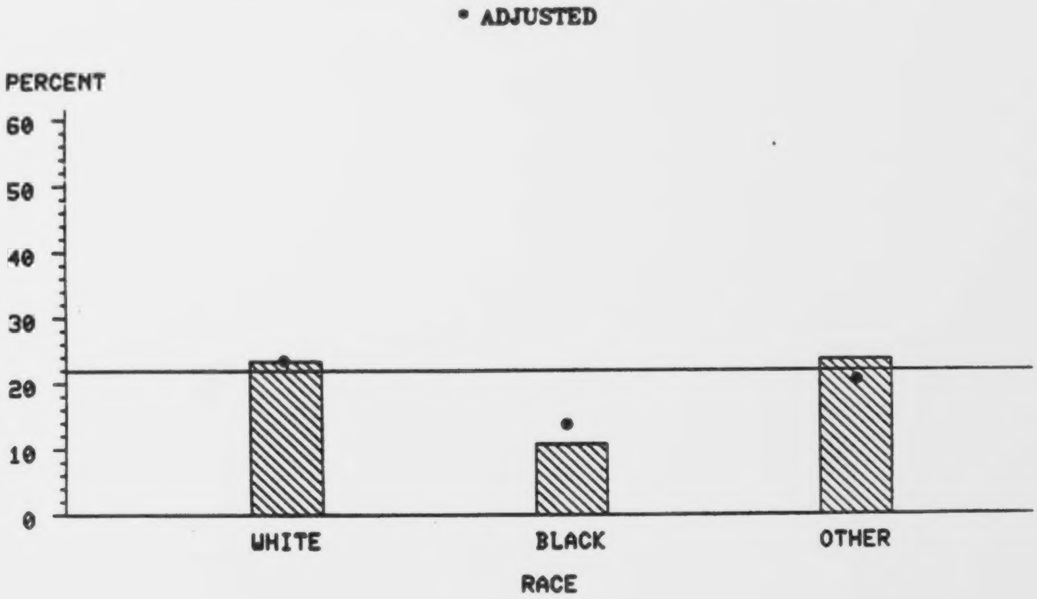
VISIT ART MUSEUMS BY GENDER



Although females attend at a higher rate than males, the difference is not great.

When other background factors are held constant, the difference increases to about a 5% greater attendance by females. This means that the reasons behind women's greater likelihood of visiting art museums are independent of (indeed, suppressed by) other factors associated with gender, such as income and education.

VISIT ART MUSEUMS BY RACE

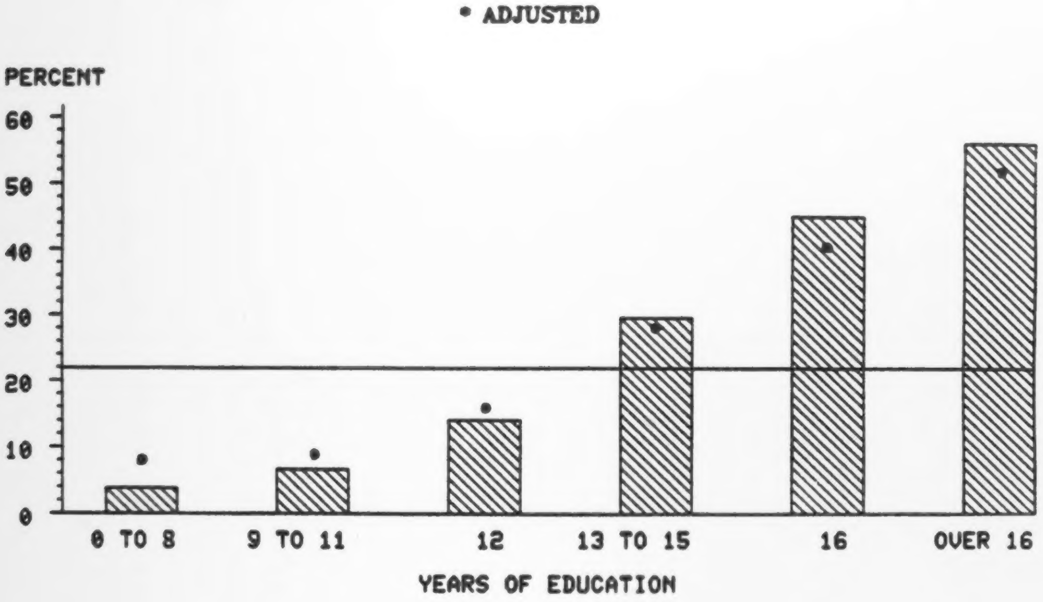


"Other" races attend art museums at the highest rate, with whites at a slightly lower rate. Blacks attend at a rates of about half the national average.

Whites attend museums at about the national average; blacks at approximately half of the national average; "other" races attend at the highest rate, about 5% above the national average.

When the effects of the other factors are removed, the rate for "other" races falls slightly below the national average, a drop which suggests that their high rate is explained by other factors. White participation remains unchanged by the statistical controls and black participation moves closer to the national average.

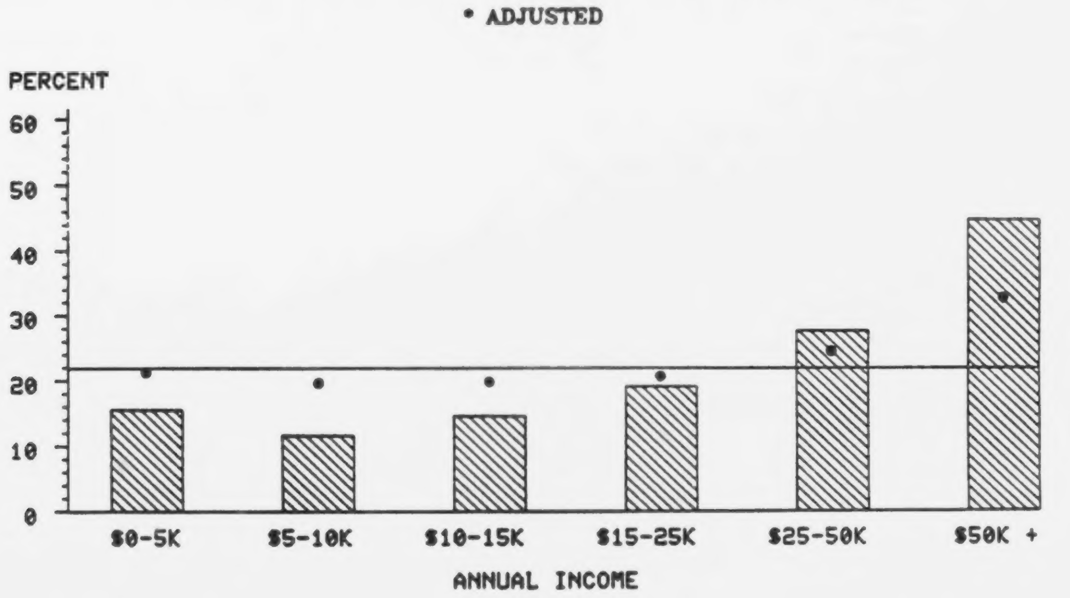
VISIT ART MUSEUMS BY EDUCATION



With increasing education, the attendance rates at museums rise sharply. The rates rise from a low (about one-seventh of the average) for those with only a grade school education to a high with those who attended graduate school (approximately two-and-one-half times the national average).

The overall pattern is essentially the same after adjusting for the effects of other factors. Thus, education is both a strong predictor and an important explanatory factor in art museum attendance.

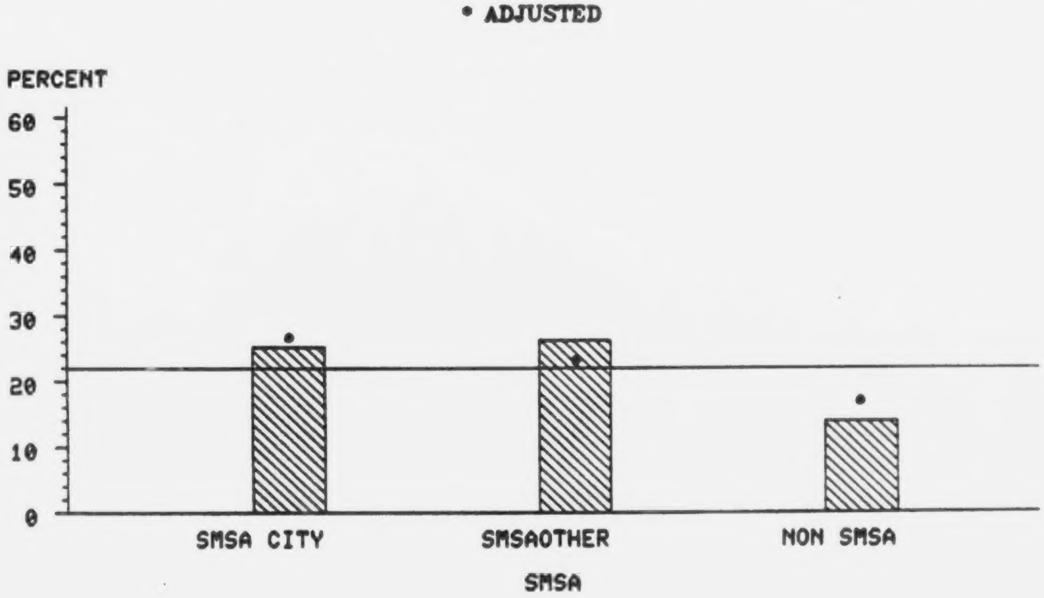
VISIT ART MUSEUMS BY INCOME



Attendance rates peak with those earning $50,000 and over. The only other category above the average are those making $25,000-$49,999. Attendance rates are lowest for those earning $5,000-$9,999 annually.

After adjustment for other background factors the same pattern holds, although those groups below the average rise nearer to the overall average. Those above the average decrease slightly.

VISIT ART MUSEUMS BY SMSA

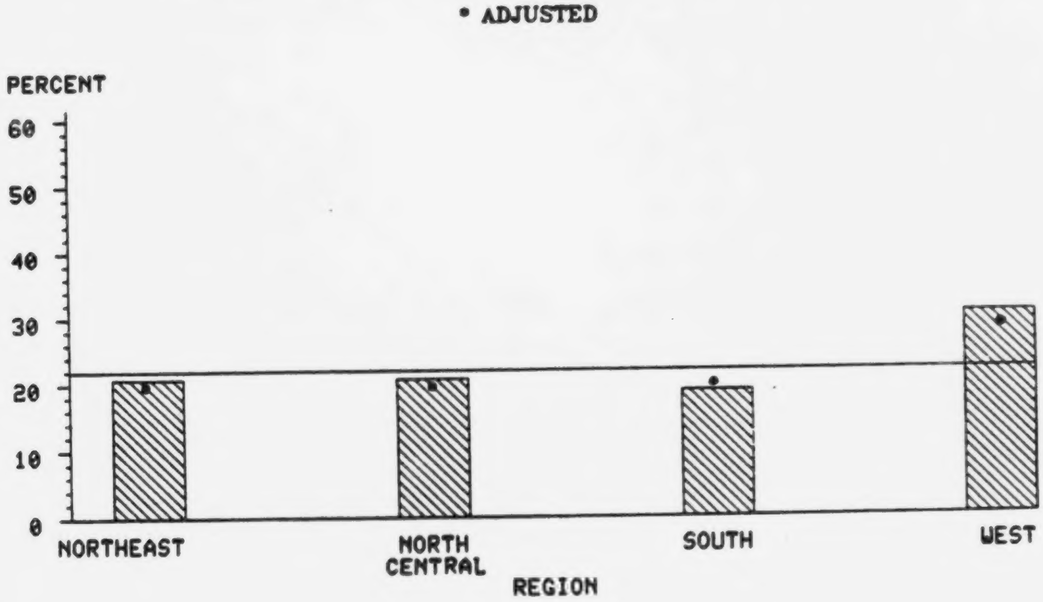


Within SMSA's, the attendance rates for those living within, versus outside of, the central city differ little. Those residing outside of SMSA's, however, attend at a considerably lower rate, probably due to difficulty of access to art museums and galleries.

When the other factors are held constant, the attendance rate of those living in SMSA's but outside of central cities falls slightly but remains above the national average, while the rate of those living outside of SMSA's moves noticeably toward the average.

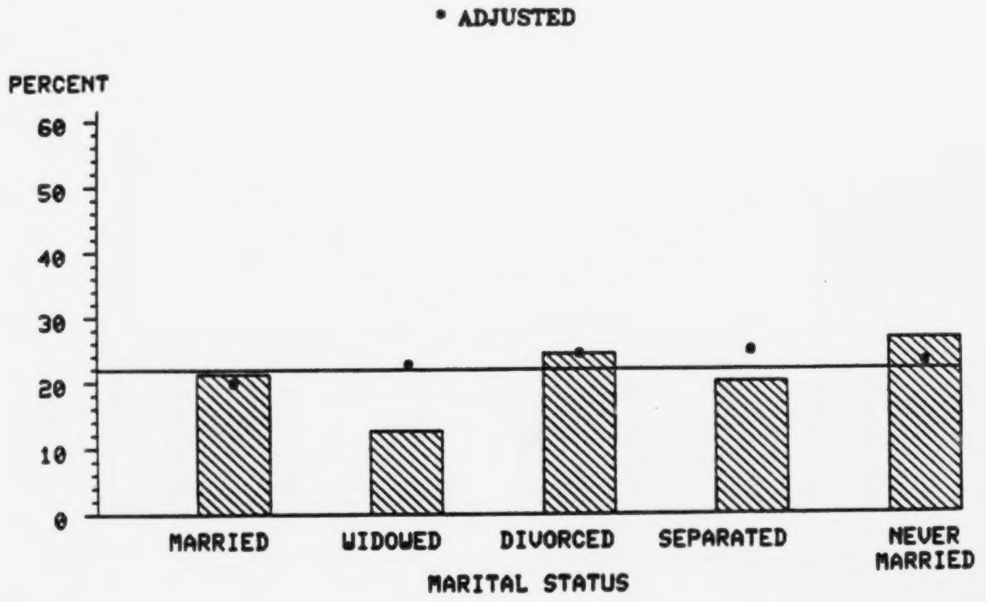
This means that some of the apparent differences between urban and nonurban attendance are attributable to other factors like income and education which tend to be higher in suburban areas.

VISIT ART MUSEUMS BY REGION



Residents of the West report highest attendance at art galleries and museums -- both before and after MCA control.

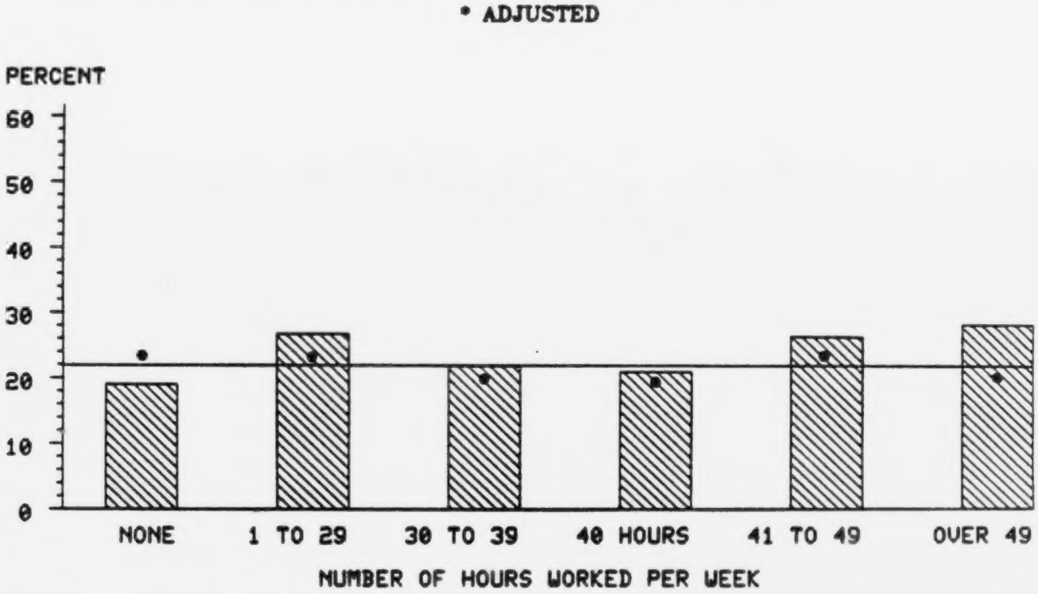
VISIT ART MUSEUMS BY MARITAL STATUS



Those divorced and those never married have the highest attendance rates for art displays. Those married or separated are near the average for museum attendance, while widowed people attend at the lowest rate.

The impact of other factors accounts for much of the lower rates for the widowed and separated, as shown by considerably higher rates after adjustment. Lower income, for example, might at least partially account for the originally low rates for these two groups. Each of the other groups had similar patterns to the before adjustment figures.

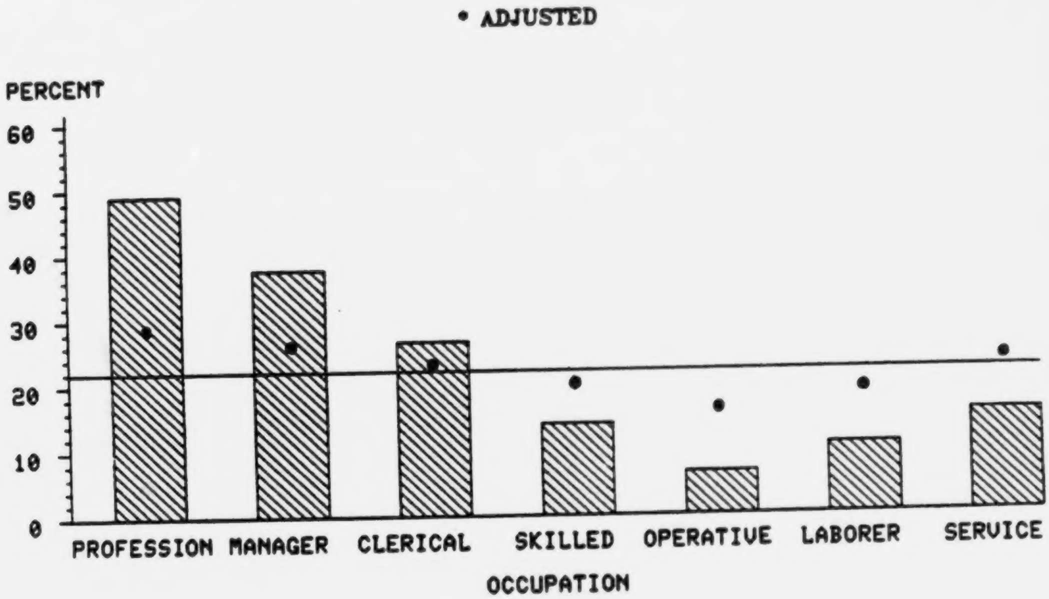
VISIT ART MUSEUMS BY HOURS WORKED



Those working over 50 hours per week have the highest rate of atendance; while those working none or 30-40 hours have the lowest attendance rates, below the national average.

However, after controlling for other factors, this pattern changes. Those working 30-40 hours remains the same, but attendance for non-workers rises sharply, indicating that factors like income might suppress attendance in the unadjusted figures, while rates fall for all other groups.

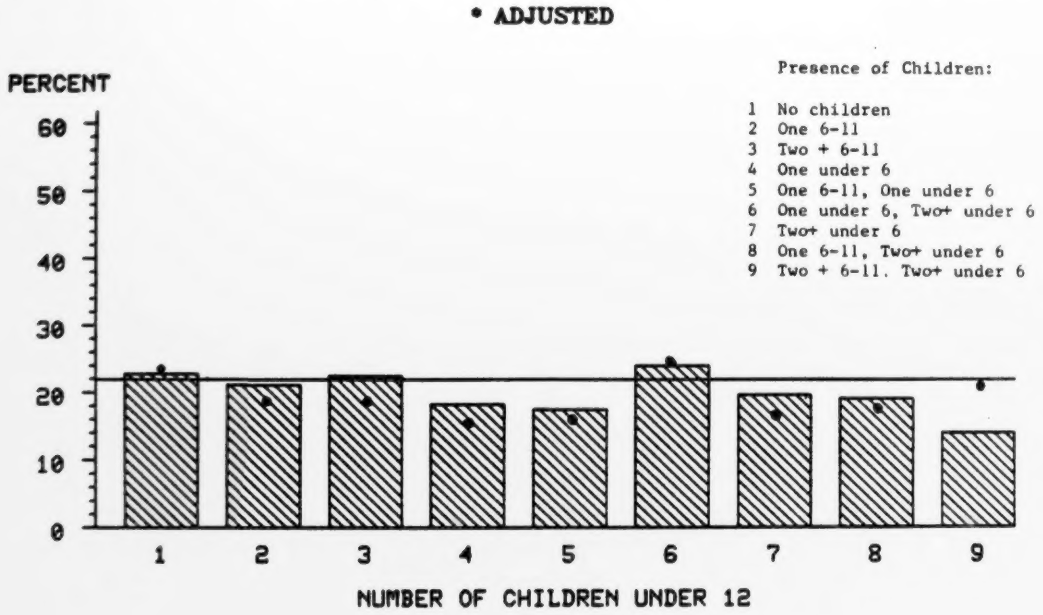
VISIT ART MUSEUMS BY OCCUPATION



Professionals and managers, visit art museums and galleries at markedly higher rates in comparison to those in other occupational categories. Similarly, students (not represented in this figure) also visit art museums at decidedly higher rates than the national average (34%).

When adjustments are made for the effects of other background factors, these figures are not quite as dramatic, although the same occupational groups still maintain the highest visitation rates overall. White collar workers (and students) still visit museums more often than their blue collar counterparts, but the adjustment shows that the increased rates are more a product of increased income and educational levels, rather than a reflection of the occupation itself.

VISIT ART MUSEUMS BY NUMBER OF CHILDREN



People without children in the household go to art displays at an average rate, while those with children under the age of six show a slightly lower rate of attendance. In contrast, those households with one child under the age of six and two children between the ages of six and 11 show the highest attendance rates, although the difference is slight. If another child under the age of six is added to the above household, however, the attendance rate drops dramatically to the lowest rate, 14.0%.

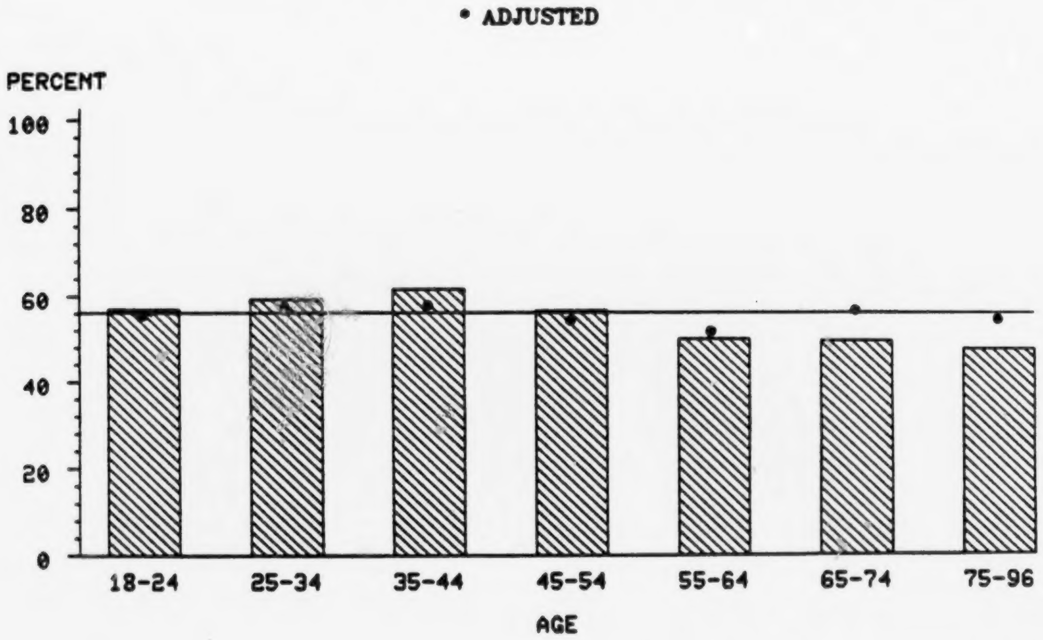
Adjusting for other factors changes these findings significantly. In the household with two children under the age of six and two children age six to eleven, the low rate rises significantly. The lowest rates of attendance can be found among those with one or two children under the age of six.

READING OF NOVELS, SHORT STORIES, POETRY, OR PLAYS

Education, occupation and income are the most important predictors of reading literature (variations of 34 to 57 percentage points).

When other factors are held constant, education remains the single best predictor (high-low variation of 51 points); some occupation, gender and race differences are found as well.

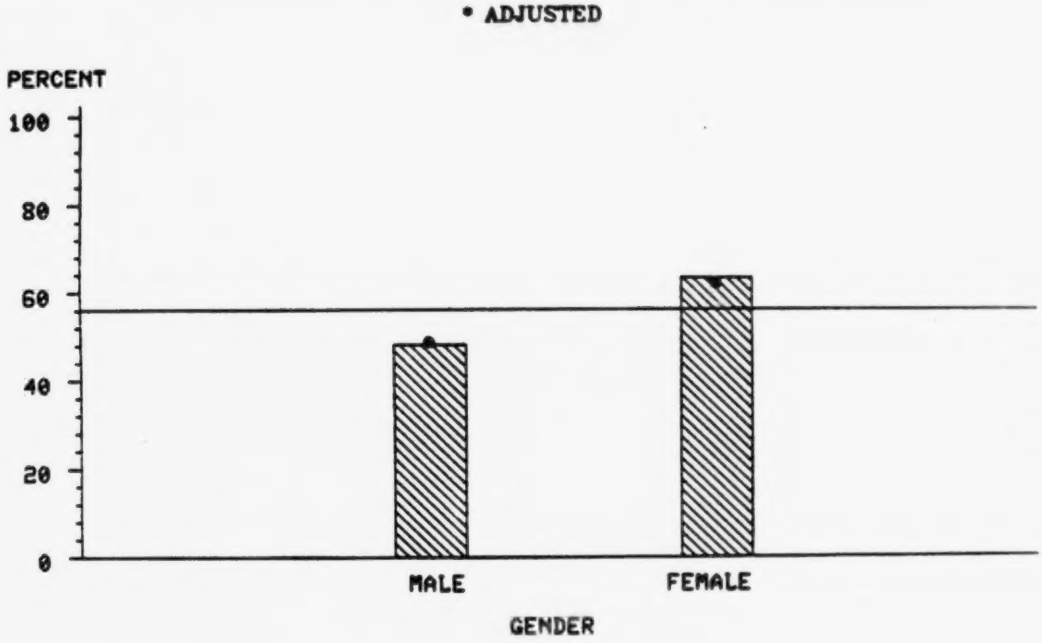
READING LITERATURE BY AGE



The propensity to read plays, novels, short stories or poetry increases with age, peaking for those in the 35-44 age group; it then decreases for the higher age groups. Those in the 75-96 age maintain the lowest reading rates.

Once adjustments are made for other factors, these differences in reading habits become less defined. Those in the 35-44 age group still report the highest levels of reading literature for the year; however, the lowest rate falls considerably.

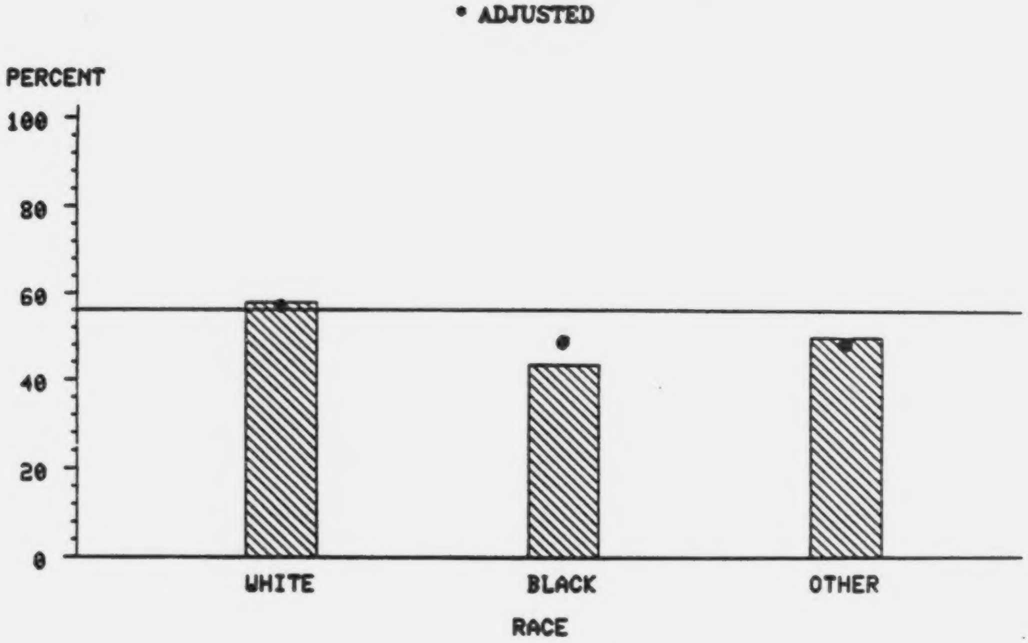
READING LITERATURE BY GENDER



Females are more likely to read literature than their male counterparts.

This breakdown changes only slightly once adjustments are made for other factors. Females attend at a rate one third higher than males, after adjustments are taken into consideration.

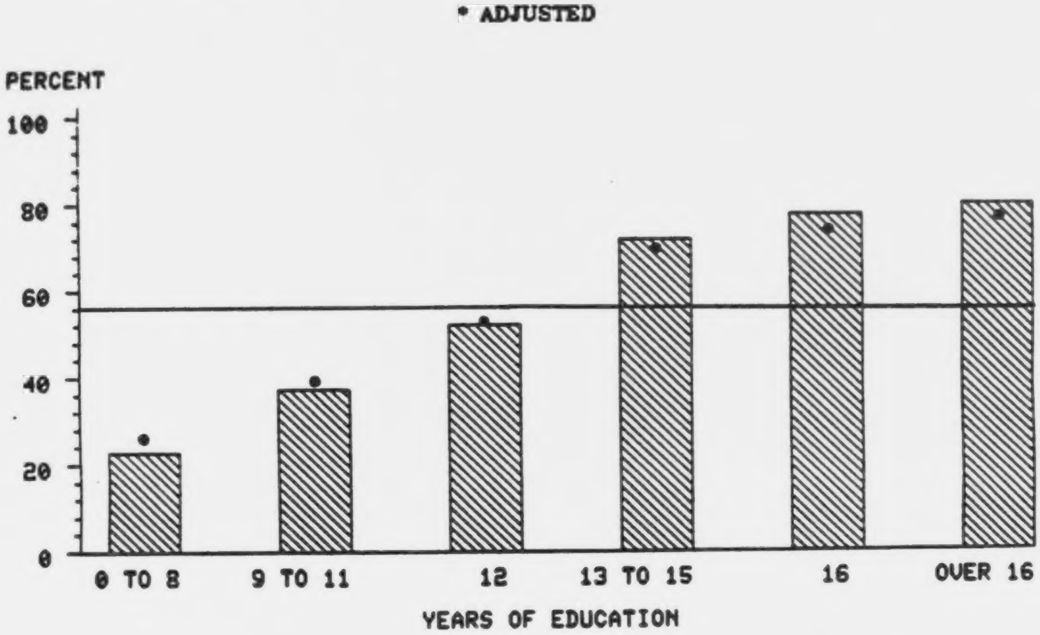
READING LITERATURE BY RACE



Whites read literature more often than those from both black and other races. Blacks read literature at a rate that falls 12 percentage points below the national average.

The black reading rate increases once adjustments are made. Conversely, rates for both white and "other" respondents drop slightly once other factors are controlled.

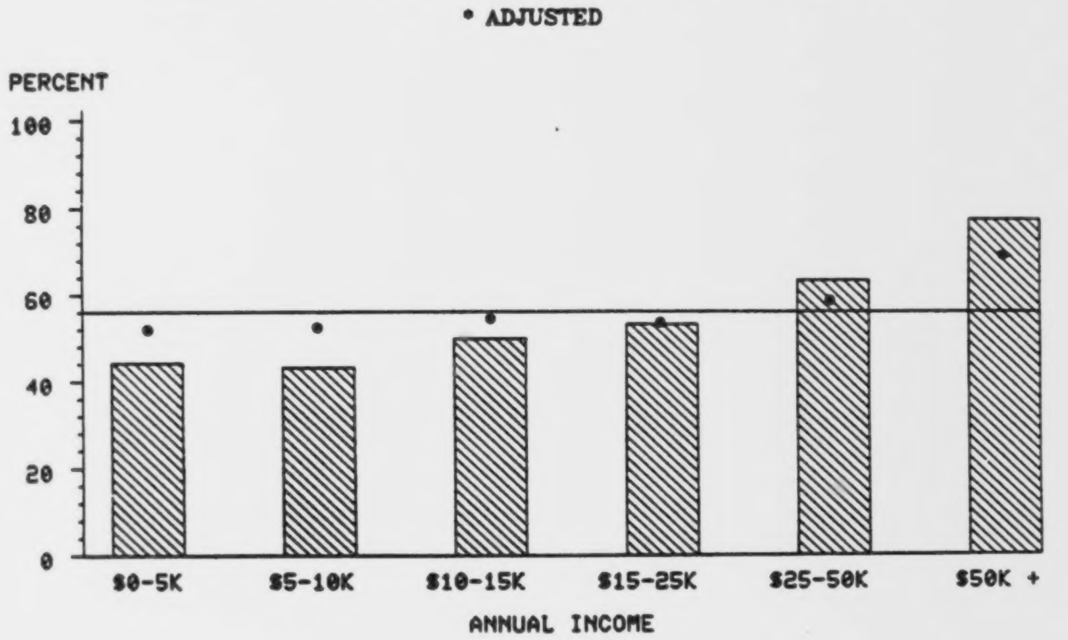
READING LITERATURE BY EDUCATION



Education is a key factor in determining the rate at which people read literature. It follows uniformly that the higher the income, the higher the reading rate. Those who have only a grade school education are less than half as likely as the average person to read literature. In contrast, the proportion of literature readers among those who attended graduate school is one-and-a-half times the national average.

The pattern is little changed after adjusting for the effects of the other background factors. The linear relationship between education and reading persists, and education proves a strong factor in explaining rates of reading literature.

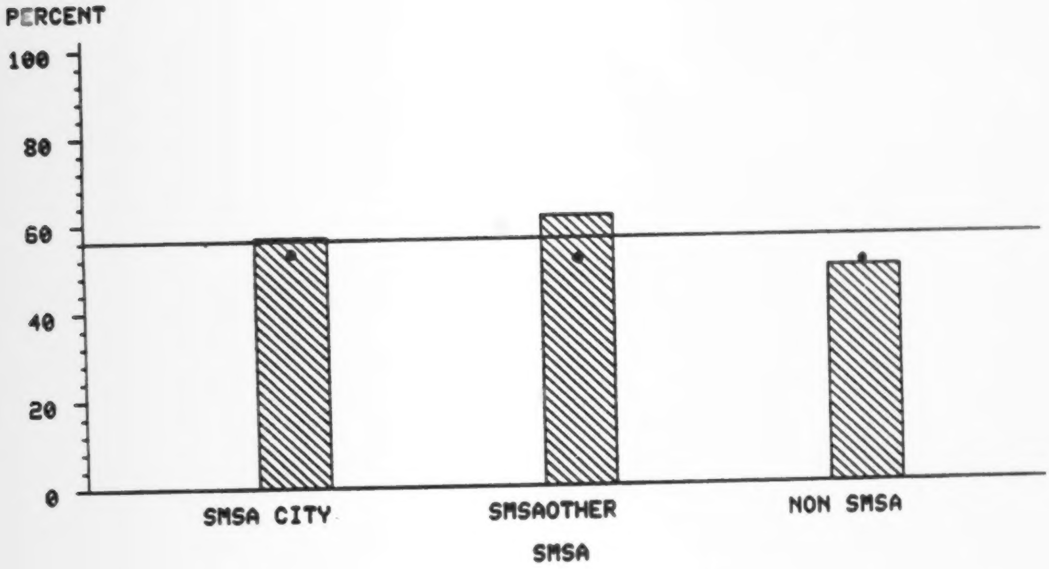
READING LITERATURE BY INCOME



As with education, reading literature is almost uniformly affected by the respondent's income level; that is, the higher the income, the greater the respondent's reading rate. The exception to this comes with the under $5,000 income level. This fact is probably related to the number of students in this income bracket.

This uniformity changes slightly once controlling factors are taken into consideration. Those at the highest income levels still maintain the highest reading rates. However, those in the $10,000-$14,999 income range report higher reading rates than their $15,000-$24,999 counterparts.

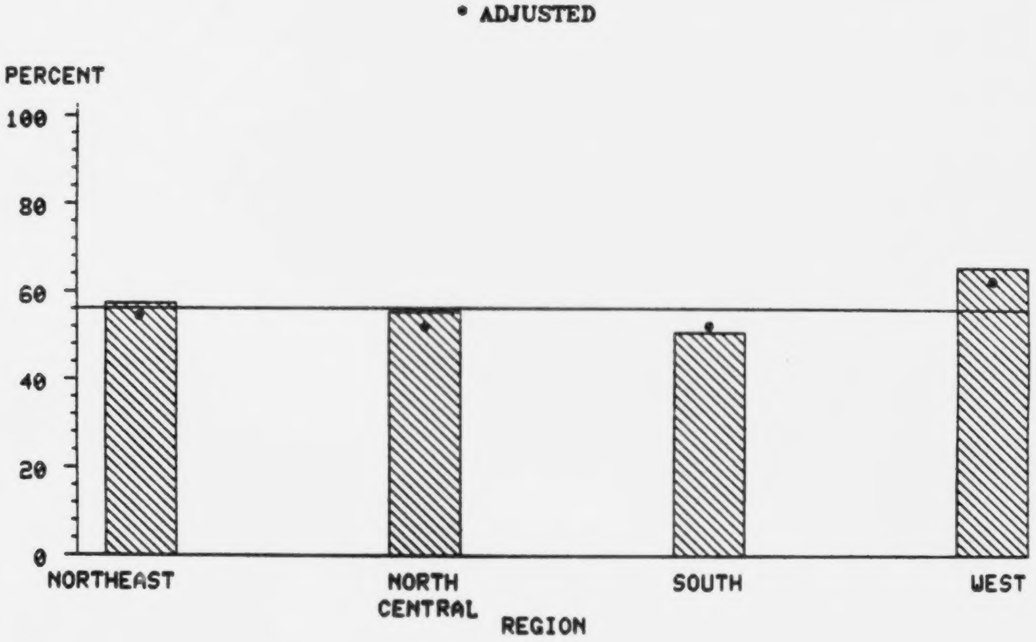
READING LITERATURE BY SMSA



Within SMSA's, the percentage of residents outside of the central city who read literature is greater than among people living in the central city. Those who reside outside of SMSA's have the lowest rate, but the differences between the three groups are not large.

These differences grow even smaller when other factors are controlled. Educational levels (usually highest in the suburbs) probably account for the initial unadjusted differences.

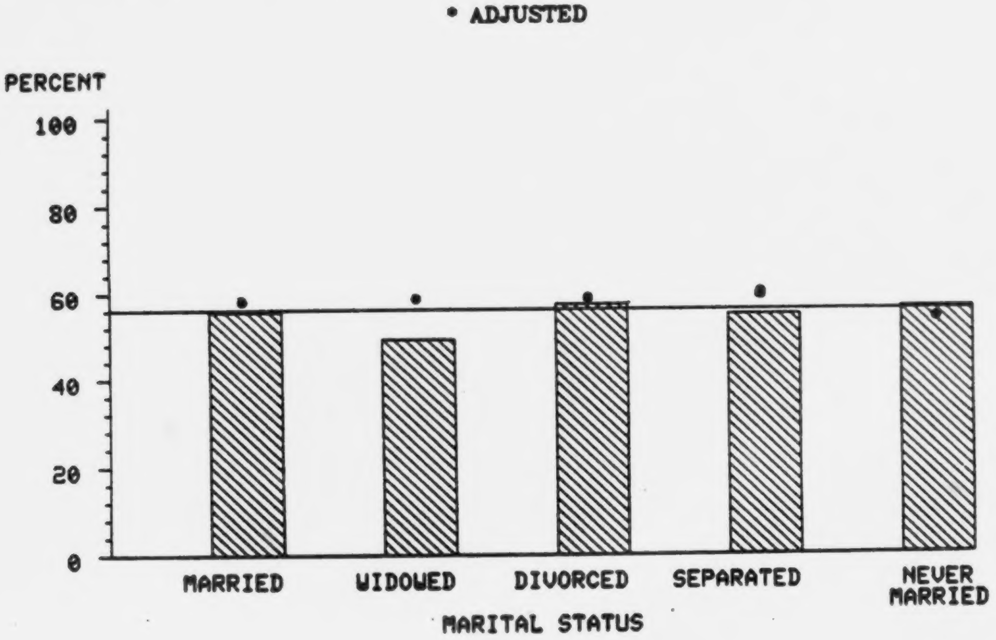
READING LITERATURE BY REGION



Residents of the West report average rates of reading literature and residents of the South below average reading rates.

These differences are reduced somewhat, but are still evident after MCA control.

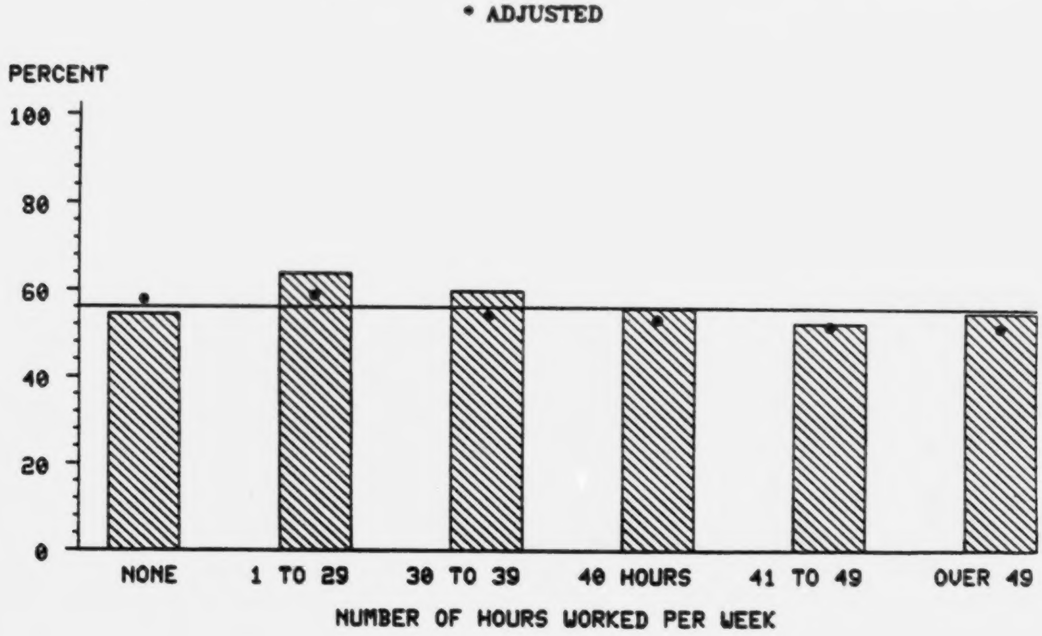
READING LITERATURE BY MARITAL STATUS



Divorced persons and the never married respondents claim the highest reading rates. Those who are married or separated read at rates below the national average.

Once adjustments are made, the figures change. Divorced persons read at a higher rate in contrast to their unadjusted level. Likewise, although the never married rank high in the unadjusted figures, once controls are maintained, this group's rate falls to the lowest of the groups.

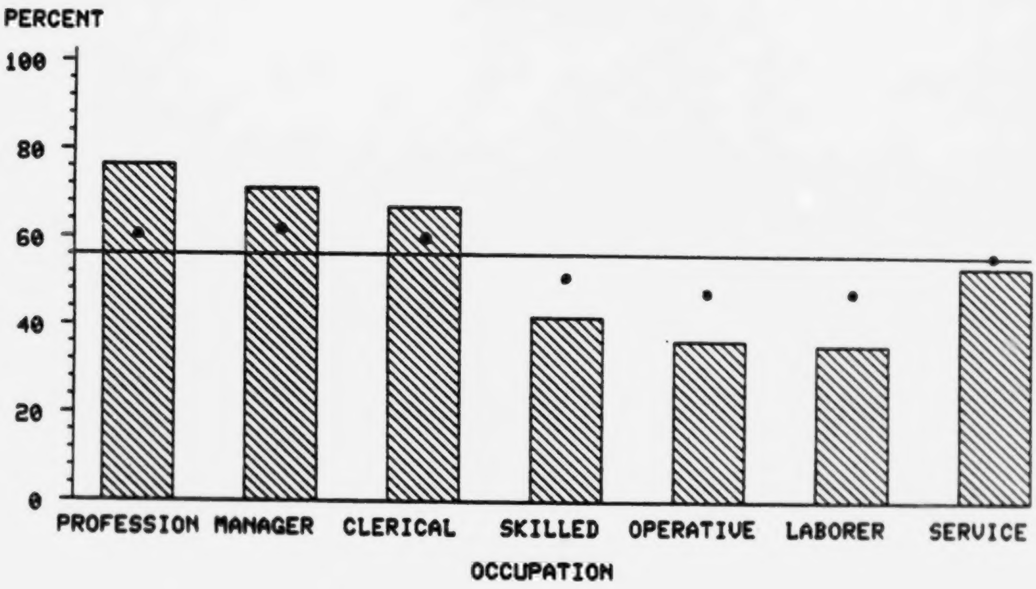
READING LITERATURE BY HOURS WORKED



Part-time workers (under 40 hours per week) tend to read literature more than any other group. Those who work 50 or more hours tend to read more than their 41-49 hour counterparts.

Adjustments make a major difference in these observations. Once controls are maintained, the reading rate corresponds negatively to work hours. That is, the fewer hours a person works, the more time s/he will spend reading literature. Again, the only exception to this is in the 50 or more hours worked category.

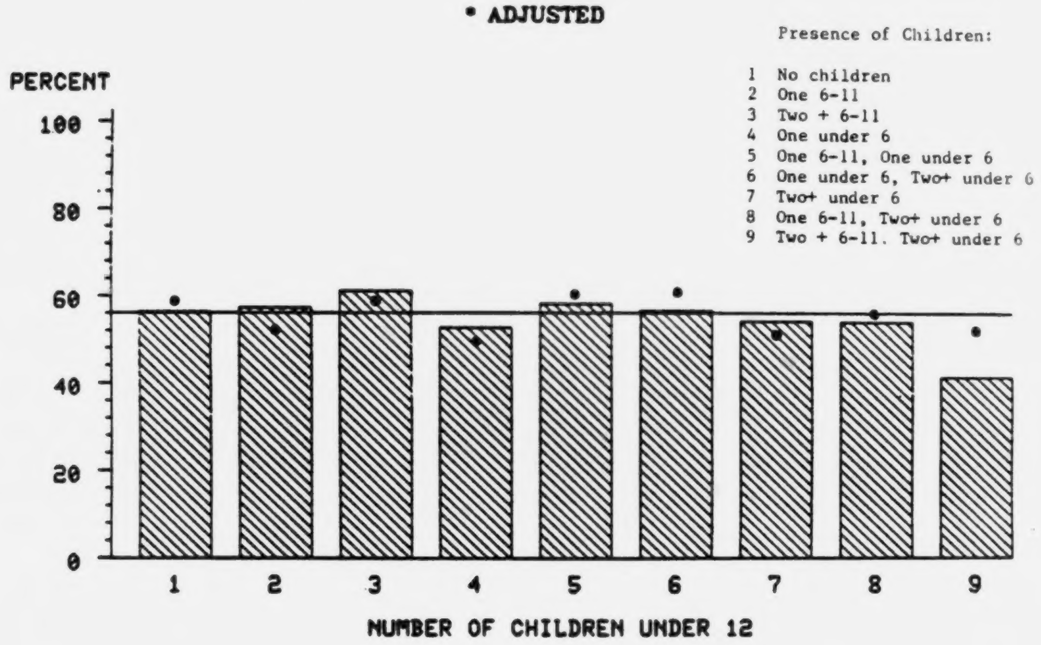
READING LITERATURE BY OCCUPATION



Professionals and those in managerial positions, as well as students (not shown) maintain the highest reading rates. Laborers and other blue collar workers fall far below the national average in reading rates.

Adjustments even out these differences, suggesting that other factors such as education and income play a significant role in the reading rates. Students are the most voracious readers, while blue collar workers maintain the lowest rates.

READING LITERATURE BY NUMBER OF CHILDREN



In general, reading rates fall near the national average, regardless of the number of children within the household. A large change occurs in the group with two or more children under the age of six and two or more between the ages of six and 11. Their reading rate falls well below the national average.

Adjustments for other factors puts the reading levels even closer to the national average. In the adjusted group, those with one child under the age of six and one age six to 11 are more likely to read literature than any other category considered. Still, the difference between the lowest and highest reading rates is less than a full percentage point.

Thus, these graphs reinforce the conclusion from Tables 3.3 and 3.4 about the predominance of education as a predictive and explanatory factor in arts participation. Occasional differences are found by certain income, occupation, age or racial groupings, but overall education is the primary variable to be considered.

E) INTERCORRELATIONS OF PARTICIPATION IN THE ARTS

Do audiences for arts performances, visitors at art galleries and museums, and readers of literature constitute separate or overlapping groups? If they overlap, can we predict attendance at a particular arts event from participation in another type of arts event? (If the overlap between two arts events is no greater than average public attendance, then attendance at one event will not aid in predicting attendance at the second type of arts event.) Does multiple participation form a complex pattern in which participation in one arts event is associated with participation in a set of other arts events? Finally, do particular background characteristics explain participation in multiple arts events better than others?

Table 3.5 presents data on the degree of overlap between attendance at pairs of arts events. Reading down the columns indicates what percentage of the arts audience cited at the top of the column also has been part of the audience of the arts event in the row. For example, 41% of those who had attended a jazz performance had also attended a classical music concert in the last 12 months; this compares to the 13% attendance rate for live classical performances for the sample as a whole. Note that the percentage overlap between two arts audiences is not symmetrical because the audiences for these eight art forms differ in size. For instance, while 81% of those attending a jazz performance also read a form of literature in the last 12 months so did 56% of the sample as a whole; on the other hand, only 14% of those who read literature in the past 12 months also attended a jazz performance -- compared to 10% for the entire sample.

Because of the larger number of visitors to art galleries and museums (22% of the sample), over half of the audiences for each of the other arts are comprised of those who have visited art museums; the same is true for reading literature. About 40% of the audience for jazz performances also attend performances of classical music, musicals and plays. A large proportion of the audience for classical music (40-50%) is also part of the audience for musicals and plays. A still larger proportion of the audience for opera (55-71%) also attend performances of classical music, musicals, museums and plays. Roughly 40% of the audience for musicals attend plays. Approximately 60% of the audience for plays attend museums and musicals. About 50-60% of the audience for ballet overlap with the audiences for plays, classical music, and musicals.

Table 3.5 shows particularly strong overlaps between the following pairs of audiences in terms of percentage (40% and over):

- Jazz and literature, museums, classical music and musicals
- Classical music and literature, museums, musicals, and plays
- Opera and classical music, plays, musicals, museums and literature
- Musicals and museums and literature
- Plays and musicals, museums, literature and classical music
- Ballet and classical music, musicals, museums, plays and literature
- Museums and musicals and literature

As noted above, each art form shows high overlap with attending museums and reading literature, both of which have relatively high participation; however, the reverse is not true (e.g., museums overlap only weakly with other art forms because of their much smaller audiences.)

Some of these ambiguities may be resolved by examining the "odds ratios" between activities. These ratios reflect the relative degree to which probabilities of engaging in one type of activity predict the possibility of engaging in another type of activity. Thus, the 5.9 entry in Table 3.5a for classical music and jazz indicates that the participation rate among attenders of one type of music is almost six times higher than

TABLE 3.5: Overlapping Audiences for Arts Activities: Percentage of Reference Audience Also Reporting Attendance at Other Core Arts Activities

	Reference Audiences								
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading	TOTAL SAMPLE PARTICIPATION
Percent Also Attending:									
Jazz	X	29%	35%	22%	28%	36%	24%	14%	10%
Classical Music	41	X	71	38	45	59	37	20	13
Opera	10	15	X	10	12	23	9	4	3
Musicals	41	50	67	X	60	55	41	24	17
Plays	35	41	55	42	X	47	32	18	12
Ballet	17	20	37	14	17	X	13	7	4
Art Museums	58	64	71	53	61	67	X	33	22
Reading	81	86	88	82	86	89	82	X	56

X = 100% (by definition)

TABLE 3.5a: Overlapping Audiences as Reflected in Odds Ratios

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading	TOTAL SAMPLE PARTICIPATION
Jazz	X	5.9	5.7	3.9	5.1	6.1	5.8	3.6	4.5
Classical Music		X	5.9	7.0	8.5	11.7	8.9	5.6	8.3
Opera			X	10.3	9.8	15.6	8.8	6.4	9.5
Musicals				X	11.6	6.5	5.7	4.4	6.6
Plays					X	7.5	7.3	5.3	6.9
Ballet						X	7.9	6.9	7.9
Art Museums							X	5.6	6.4
Reading								X	4.9

among non-attenders. The highest clusterings of odds ratios in Table 3.5 are found for a) classical music, opera, ballet and art museums and b) musicals, plays (and opera). As shown in the final column of Table 3.5a, the odds ratios for attending jazz performances and for reading literature are the lowest in the table, but are still greater than four to one.

An alternative, and more traditional formula for statistically expressing the degree to which participation in one art form is related to participation in a second art form, is in terms of correlation coefficients. This coefficient, which varies between -1 and +1 (unlike the odds ratio which varies between 0 and 1), represents the improvement in predicting attendance at one event that is gained by knowing whether a person attends another arts event. When the coefficient equals -1, then no people who participate in one activity participate in the second activity. If the coefficient equals 0, then no systematic pattern exists--if a person participates in one art form, we are no better able to predict his/her participation in a second art form. On the other hand, if the coefficient equals +1, then the relationship is perfect-- all people who attend one art form attend the second.

Table 3.6 presents the correlations between each pairing of arts audiences. The correlations are all positive and range between +.11 and +.42 to gauge how much attendance at one arts activity predicts attendance at a second, we use the square of the correlation coefficient. Thus, the highest correlation, .42, between attending stage plays and attending musicals, means that only 18% (.42-squared) of the variance in play attendance is accounted for by attendance at musicals. In brief, knowing whether people participate in one arts activity provides a useful, but still modest, improvement in predicting participation in a second activity -- compared to

TABLE 3.6: Correlations Between Arts Audiences

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Jazz	X	.26	.15	.20	.22	.19	.27	.16
Classical Music		X	.28	.33	.35	.29	.32	.23
Opera			X	.21	.21	.26	.19	.11
Musicals				X	.42	.21	.33	.23
Plays					X	.22	.33	.22
Ballet						X	.22	.14
Art Museums							X	.31
Reading								X

attendance figures for the sample as a whole.

The correlations suggest that the overlap is greater between some art forms than others. The largest correlations, indicating more audience overlap, are found between:

1) Plays and musicals (.42)
2) Plays and classical music (.35)
3) Plays and art museums/galleries (.33)
4) Musicals and art museums/galleries (.33)
5) Classical music and musicals (.33)
6) Classical music and art museums/galleries (.32)

Conversely, the lowest correlations are found between:

1) Opera and reading (.11)
2) Ballet and reading (.14)
3) Jazz and opera (.15)
4) Jazz and reading (.16)

These lower correlations, nevertheless, still show that these arts activities pairings have some degree of overlap across audiences. Thus, the Table 3.6 correlation data indicate much the same pattern of positive overlap across arts audiences as do the odds ratios in Table 3.5a.

As noted in Chapter 2, one of the great values of correlation coefficients is that we can use these overlap measures in Table 3.6 to identify clusters of audiences in order to simplify these complex patterns of overlapping participation. For example, participation in a specific activity may be closely related to participation in a cluster of other arts activities, while participation in a second activity might be associated with another cluster of activities. One approach to such clustering comes through factor analysis, which identifies clusters or groups of variables united by underlying factors.*

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* As noted in Chapter 2, factor analysis simply identifies (through correlational analysis) those variables which are interrelated through some hypothetical underlying factor. The interrelationships are indicated through "loadings" (figures in Table 3.7); the higher the loading, the stronger the association with the hypothetical factor. However, factor analysis does not identify what the factor is, merely that it exists. Identification of the factor is a theoretical, rather than a statistical issue. Nor does factor analysis identify what the crossing point (or intersection) between the two factors is, except generally to identify objects (here activities) in the analyses that are unrelated to the hypothetical factors.

Table 3.7: Clusters of Multiple Participation in the Arts

	Factor 1
Jazz	.497
Classical Music	.694
Opera	.489
Musicals	.649
Plays	.663
Ballet	.526
Art Museums	.669
Reading	.482

Table 3.7 identifies only a single factor underlying participation in all eight art forms. There is no indication that participation separates into different clusters; rather, participation in each of the art forms is interrelated. The strongest associations are found among classical music, musicals, plays and museums, as indicated by the high loadings (values over .64) for these four activities. That is consistent with the highest correlations (of .30 and above) in Table 3.6.

The activities that are least related to general participation in the other arts activities are attending live jazz performances (loading .50) and reading literature (loading .48). In Table 3.6, several correlations of less than .50 are found with these two activities in Table 3.7. These were also the activities with the lowest average odds ratios in Table 3.5a.

We can use the Table 3.7 evidence, nonetheless, to justify construction of a single index of arts participation. That index is constructed by giving one point to each respondent for each arts activity in which the respondent reported participating. Scores can thus range from 0 (participation in no activities) to 8 (participation in all eight activities). Some 35% of respondents reported no such activities, 31% one activity, 14% two activities, 8% three, 5% four, 3% five, 2% six, and 0.7% seven; only .2% of respondents reported participating in all eight art forms in the previous year.

In most of the analyses which follow, however, the activity of reading is excluded in order to concentrate on arts activities that take place outside the home and that thus generally involve a more active degree of participation. It also serves to exclude an activity which would skew the index because of the large proportion of participants (56%) relative to other activities. Reading literature also shows much lower than average correlations and overlap with other arts activities in Tables 3.5 and 3.6. Rather than having an average index score of 1.35, then, this seven item index has an average of 0.79.

F) BACKGROUND FACTORS RELATED TO THE ARTS PARTICIPATION INDEX

Overall participation in arts activities tends to be influenced by the same background factors that are consistently associated with participation in individual arts activities. Table 3.8 presents the associations between the arts participation index and demographic factors, with index scores in the columns indicating the average number of the seven arts activities in which participation (attending jazz, classical music, opera, musicals, plays, ballet, and art displays or reading) is found across the various categories of these ten factors.

The first column presents the unadjusted figures, which consider (as in Table 3.3) variations in each background factor independently of all others. The second column (adjusted figures) shows the association between multiple arts participation and each background factor, controlling for these other background variables. These parallel the entries in Table 3.4.

As shown in the Grand Mean in Table 3.8, the average individual in SPA'85 participated in .79 types of arts activities in the last 12 months. For persons with household incomes of $25,000 and over, the rate rises to 1.78 types of arts activities in the last year. However, when other factors are controlled (adjusted column), the participation rate for this group falls to 1.26, still above the national average but well below the 1.78 figure for that group prior to MCA adjustment. And when one moves to the next highest income group (those with $20-$25,000 annual income), the adjusted figure drops to .84, which is barely above average. Again, the indications are that it is the other factors associated with income (such as education and occupation) that account for much of the high participation of higher income individuals.

The apparent influence of each of the other background variables on overall arts participation is as follows:

SMSA

Respondents living in SMSA (urban) areas -- both in cities and in suburbs -- tend to participate in arts activities more often than those residing outside of SMSA's. The MCA analysis suggests that other background factors account for much of this difference; factors such as the differential education, age and income levels of people who live in the suburbs of cities. After adjustment for these factors, city residents emerge as slightly more active than suburban residents; and rural residents become relatively more active, so that their participation levels are less than 20% below average.

Age

Multiple arts participation generally increases with age until a decline is noted in the 45-54 age group. Most of these age differences (except for the over age 75 category) are eliminated when the influence of other variables is removed, suggesting that other factors (including education, income and marital status) explain much of this variation across age groups.

Marital Status

Widowed and married individuals are less likely to participate in multiple arts than are divorced or never married people. These differences decrease when other factors are controlled, indicating the influence of factors such as age or income. Nonetheless, married people remain slightly below average in participation.

TABLE 3.8: Unadjusted and MCA-Adjusted Indices of Multiple Arts Participation by Demographic Factors

	Unadjusted	Adjusted
Grand Mean:	0.79	0.79
Income:		
Under $5,000	0.55	0.74
$5,000 - $9,999	0.40	0.76
$10,000 - $14,999	0.52	0.70
$15,000 - $24,999	0.65	0.73
$25,000 - $49,999	0.97	0.84
$50,000 and over	1.78	1.26
Not ascertained	0.74	0.72
SMSA:		
Cent city of SMSA	0.92	0.93
SMSA, not cent city	0.94	0.82
Not in SMSA	0.49	0.64
Age:		
18-24	0.80	0.80
25-34	0.86	0.82
35-44	0.96	0.85
45-54	0.84	0.79
55-64	0.69	0.76
65-74	0.62	0.81
75-96	0.40	0.57
Marital Status:		
Married	0.74	0.75
Widowed	0.52	0.83
Divorced	0.89	0.87
Separated	0.80	0.90
Never Married	1.01	0.87
Race:		
White	0.83	0.82
Black	0.48	0.62
Other	0.77	0.67
Sex:		
Male	0.73	0.67
Female	0.85	0.91
Education:		
Grade School	0.12	0.28
Some High School	0.24	0.34
High School Graduate	0.48	0.53
Some College	1.01	0.96
College Graduate	1.68	1.54
Graduate School	2.21	1.98
Work Hours:		
None	0.66	0.86
1 to 29	0.99	0.87
30 to 39	0.82	0.71
40 hrs	0.77	0.68
41 to 49	0.92	0.79
50 or more	1.05	0.79
Occupation:		
Professional	1.86	1.03
Managerial	1.41	0.94
Sales, Clerical	0.97	0.84
Craftsman	0.43	0.75
Operatives	0.26	0.65
Laborers	0.37	0.75
Service Workers	0.57	0.74
Not working	0.60	0.77
Keeping House	0.59	0.67
Student	1.22	0.91
Retired	0.53	0.76
Presence of Children:		
No children	0.84	0.85
One 6-11	0.73	0.67
Two+ 6-11	0.86	0.78
One under 6	0.61	0.55
One 6-11, One under 6	0.65	0.68
One under 6, Two+ 6-11	0.60	0.69
Two+ under 6	0.63	0.57
One 6-11, Two+ under 6	0.67	0.72
Two+ 6-11, Two+ under 6	0.45	0.78

Race

Blacks are less likely to participate in the arts than whites or "other" races. However, when other background factors are taken into account, blacks' lower participation is not as pronounced, and is about equal to that of "other" racial groups.

Gender

Women participate in more types of arts activities than do males. This gender differential almost doubles after other factors are taken into account.

Education

Attending various arts activities is related most strongly to a person's educational level. This is the one factor that survives the impact of other background factors, dropping only from a 2.09 high-low group differential to a 1.70 differential after adjustment.

Work Hours

People working part-time and long hours are most likely to participate in various types of arts activities, while people not in the labor force are least likely to participate. However, when the effects of associated factors are controlled, the non-employed and part-time workers show the highest rate of arts participation, indicating that other factors (e.g., age, education) act to suppress their higher than average rate of participation.

Occupation

Professionals, managerial workers and students tend to have higher scores on the arts participation index. Much, but not all, of this greater participation is attributable to the influence of other factors, particularly education and income.

Presence of Children

People without children at home are more likely to report multiple arts participation; generally, those with pre-school children show lower than average participation. This overall pattern shows little change after adjustment for the impact of other background factors, although the differentials by age of the child are less noticeable after adjustment.

SUMMARY

This chapter has presented basic data relating to public participation in eight different art forms: jazz, classical music, opera, musicals, plays, ballet, art galleries and museums, and reading literature. A series of 10 questions asked in each month of SPA'85 inquired into both attendance at, and direct performance in, these various arts activities. Estimates of participation by attendance range between 3-4% of the population for ballet and opera to over 20% for museums; more than half of the sample said they had read some form of literature (novels, plays, poetry, short stories).

Although less than 1% of the sample had themselves directly engaged in a public performance of any of these art forms, this is still a sizeable segment of the population (over a million people) appearing in some public performance.

There were pronounced differences in arts participation among different sub-groups of the population. Thus, variations in arts participation by 11 demographic variables (age, gender, race, education, income, SMSA, region, marital status, work hours, occupation and number of children) were examined to identify consistent differences among sub-categories of each variable and the major determinants of participation. Two types of association were analyzed: participation by each demographic variable considered separately (unadjusted), and participation after other variables were held constant (MCA adjusted).

Education clearly emerged as the strongest demographic predictor of arts participation, either considered independently or after adjustment for the other demographic variables. While occupation and income were also important predictors, their predictive power was weakened considerably when education and other background factors are taken into account (with the main exception of the over $50,000 income group, whose participation is higher than that of any other income group.)

Differences in arts participation in certain age, gender, work hour, marital status, SMSA and race groups were also found. However, differences within most of these sub-groups were weakened considerably when other background variables are taken into account.

In examining overlapping arts audiences, certain pairings of activities showed more overlap than others However, factor analysis reveals a general common pattern of intercorrelation across all the art forms, and thus did not reveal distinct clusters of arts participation. When an index of multiple arts participation was constructed, education again was the most important variable in explaining differences in index scores, although some high income and occupational groups were also higher than average in certain forms of arts participation.

Chapter 4

OTHER CONTEXTUAL AND BACKGROUND FACTORS IN RESPONSES ON ARTS PARTICIPATION

The responses to the core attendance questions in Chapter 3 raise several contextual and methodological issues in terms of their reliability and validity. Six methodological questions in particular are raised in this chapter:

1) How consistent are the overall sample responses from month-to-month, since each month was a separate random sample that should yield approximately the same annual estimates?

2) How internally consistent are reported monthly attendance and reported annual attendance responses? (SPA'82 data analysis)

3) How consistent are these data with aggregate level data (e.g., ticket sales) reported by arts organizations and performing companies?

4) How closely do these data seem to compare with other national and regional surveys of arts participation?

5) How closely do the 1985 U.S. data compare with data from parallel surveys in other countries?

6) Do logit-probit analyses suggest a different pattern of results from the Multiple Classification Analysis (MCA) results analyzed in Chapter 3? (SPA'82 data analysis)

An answer to the first question involves a separate tabulation of SPA responses for each of the six survey months. These tabulations are controlled for the monthly sample differences in respondent characteristics.

The second question involves analyzing a specific set of more detailed and specially designed SPA'82 questions pertaining to attendance in the 11 months preceding the target survey month; these detailed questions were developed according to a statistical model that allowed for comparison of the consistency between monthly and yearly estimates.

The third question involves some difficult and somewhat arbitrary comparisons with aggregate data from arts organizations about actual attendance patterns at certain types of performances. These comparisons are less than ideal because of the problems in the methodologies employed in recording attendance from box office figures, which are the basis of the official aggregate attendance figures.

The fourth question involves comparisons of SPA responses to other surveys that have also estimated proportions of Americans who attend arts performances. Some of these comparisons are also hampered by different measurement procedures and by the variations in the phrasing of attendance questions.

The fifth question also involves methodological problems of comparing questions, including language differences when certain international comparisons are attempted. Nonetheless, some surprising cross-national parallels in responses were found.

The sixth question involves a separate statistical analysis program, called "logit-probit" analysis of the attendance data in Chapter 3. This analysis is more appropriate for percentage attendance data, particularly for those attendance questions in the survey that were answered positively by 10% or less of those interviewed. The analysis reported here is for 1982 data only.

A further methodological question has been examined in a separate Survey Research Center report that deals with how verifiable the general attendance responses appear to be in terms of the specific performances that respondents had in mind when answering the arts participation questions. That report represents analyses of a collection of open-ended "follow-up" responses in separate national telephone surveys of arts participation conducted by the University of Maryland in June of 1983 and January of 1984.

In this survey (ARTS'83-84), respondents who said they had attended arts performances in the last year were asked specific questions about their most recent attendance at such a performance: its location, the names of the performance and performers, and whether the performance was an amateur or professional production. The extent to which respondents can provide appropriate answers to these questions affects one's confidence in these questions as verifiable indicators of arts attendance.

Contextual Questions:

In addition to these questions which center largely on method, this chapter also contains five additional analyses that elaborate on the analysis of arts participation data in Chapter 3. These involve:

7) Analysis of "locational" or "facility" differences in the types of performances attended. What proportion of jazz, classical music, opera, etc. performances were seen at different types of facilities (e.g., college campuses, in parks, in churches)?

8) Analysis of attendance patterns by more fine-grained geographical factors than the five regions or three urban-rural categories examined in Chapter 3. For this purpose a special 24-category geography variable was created which subdivides the country into the four regions, but further examines the larger metropolitan areas within each region. These areas include New York City, Boston, Philadelphia, Washington, Baltimore, Detroit, Chicago, St. Louis, Los Angeles and the San Francisco Bay area. In addition, certain Southern cities are combined in this analysis: Atlanta, Miami, Houston, Dallas and New Orleans.

9) Analysis of arts attendance by very detailed occupational categories, to note important variations in attendance among those within the broad range of "professional" (or "service") occupations, for example.

10) Analysis of arts attendance by other background variables collected in the survey that seem of less central relevance to arts attendance, but which may affect it nonetheless. These background variables include overall size of the household, type of housing unit (house, apartment, trailer, etc.), and presence of telephones or automobiles in the household.

11) Analysis of arts attendance according to whether other individuals in the respondent's household attended. Is it the case, for example, that one is more likely to attend performances if one's spouse also attends, or are the dynamics of attendance more complementary, i.e., if one goes, the other stays home or does something else?

This latter question involves a very complex analysis of the present data collected on a household basis, by using attendance information obtained from spouses and other household members as predictor variables for the respondent's attendance.

A) MONTHLY DIFFERENCES IN ARTS ATTENDANCE

As noted in Chapter 2, data collection was conducted in separate, relatively equal, samples for each of the first six months of the calendar year 1985. This monthly sampling makes it possible to examine attendance differences at arts performances both on a monthly basis and on a seasonal basis. These monthly differences are shown in Table 4.1 in two parts: a) reported attendance in the prior month and b) reported attendance in the prior six months. Figure 4.1 graphically portrays the monthly attendance differences by month of referral.

With regard to reporting of participation in the prior month (remembering that January 1985 respondents were reporting on December, 1984 attendance, February respondents on January, 1985 attendance, etc.), we find the following monthly peaks and valleys:

	Highest attendance months:	Lowest attendance months:
Jazz:	February to May	December to January
Classical Music:	December and April	--
Opera:	December to February	March to April
Musicals:	April and December	--
Plays:	April	May
Ballet:	December	--
Museums:	April	--

In general, these patterns of reported arts attendance tend to indicate higher participation rates in April and December. A main exception to this pattern, however, occurs for opera; opera's peak months are December through February.

Month-to-month variations in reporting of yearly attendance are much smaller than for monthly attendance. One reason for this greater year round stability is that the reporting period is longer; that is, the seasonal and month-to-month variations become averaged for the annual report-

FIGURE 4.1

MONTHLY VARIATIONS IN ARTS PARTICIPATION (DEC 1984 THRU MAY 1985)

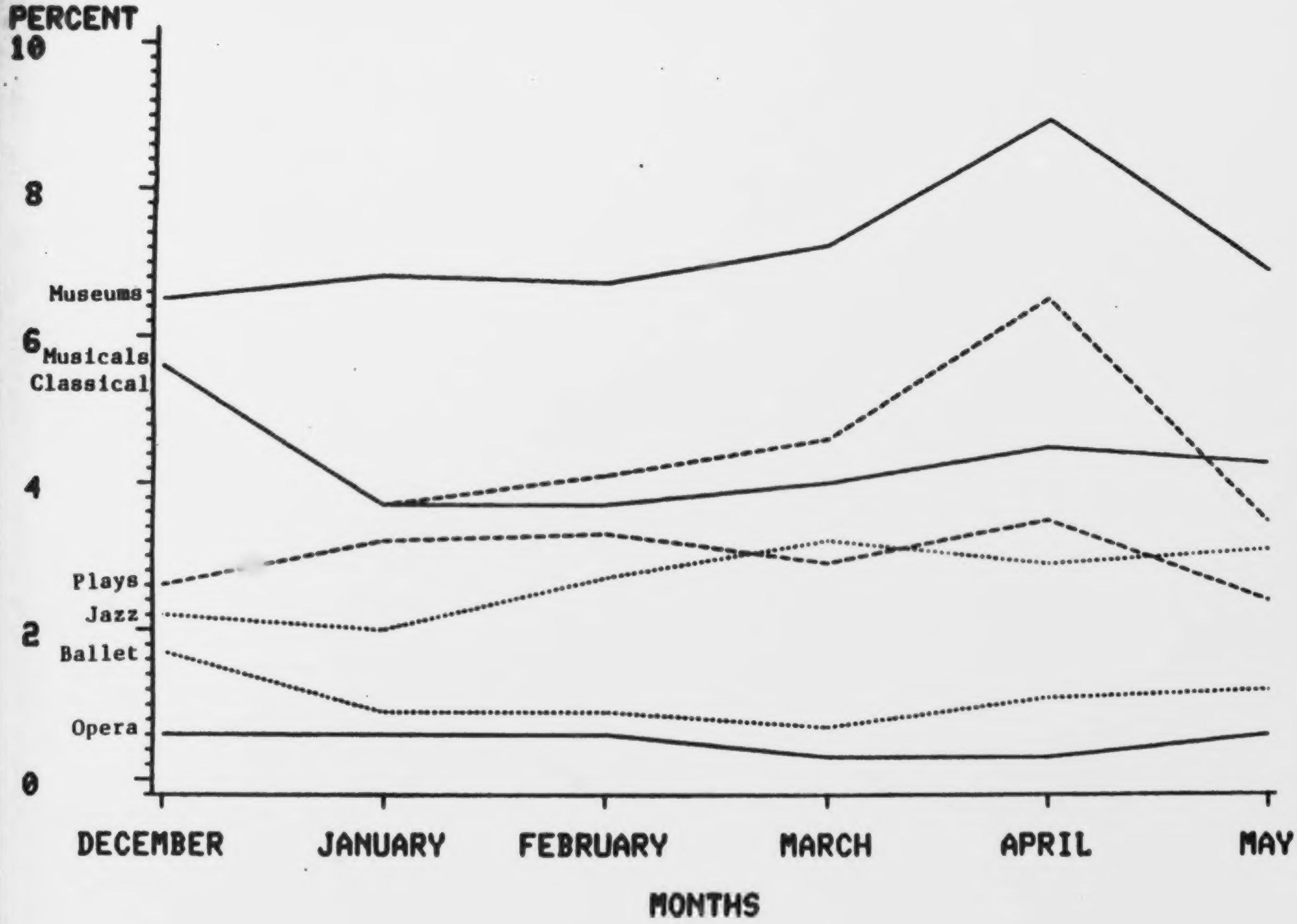

TABLE 4.1: Monthly Percentages if Rèspondents Reporting at Least One Attendance at a Core Arts Activity

a. Attendance in Prior Month

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
Jazz	2	2	3	3	3	3	2.7
Classical	6	4	4	4	5	4	4.0
Opera	1	1	1	@	@	1	0.5
Musicals	6	4	4	5	7	4	4.4
Plays	3	3	3	3	4	2	2.8
Ballet	2	1	1	1	1	1	1.1
Art Museums	7	7	7	7	9	7	7.0

b. Attendance in Prior Year

	Jan	Feb	Mar	Apr	May	Jun	TOTAL
Jazz	9	10	10	10	10	10	9.5
Classical	13	15	13	13	14	13	12.7
Opera	2	3	3	3	3	3	2.6
Musicals	18	18	15	18	20	17	16.6
Plays	12	13	11	12	13	11	11.6
Ballet	4	5	4	4	5	5	4.3
Art Museums	23	23	22	23	23	23	21.9
Reading*	53	59	57	57	58	58	56.0

@ Less than 0.5%.
* No past month data collected on reading.

ing period and already aggregated into the rate of attendance. Moreover, the proportions being estimated are much higher (e.g., over three times as many respondents reported going to jazz in the previous year as those reporting going in the previous month). Nonetheless, there are some differences in reported yearly attendance (Table 4.1b), such as the slightly higher proportions of classical music, play attendance and readers in the February survey; musicals and plays in the May survey; and the low proportions for reading in the January survey. Otherwise, the differences across months are within 1 or 2 percentage points of the overall proportion for the entire survey.

B) EXAMINING THE CONSISTENCY BETWEEN YEARLY AND MONTHLY ESTIMATES: A STATISTICAL MODEL (SPA'82 Data)

Our second methodological question is: Are the monthly estimates consistent with the yearly estimates in terms of some basic assumptions and principles from mathematical probability theory? We can explore this question by examining the structured properties of the respondent's yearly estimate of participation in terms of the respondent's monthly estimate of participation.

To do this:

Let M = proportion of respondents participating each month and let m = the complement proportion not participating that month (thus, M+m = 1)

O = proportion of respondents participating in other months and let o = the complement proportion not participating in other months (O+o = 1)

Theoretically these two questions separate four possible "types" of respondents:

MO = proportion participating both in the prior month and also participating the preceding (11) months of the year,

Mo = proportion participating in the prior month but not participating in preceding months,

mO = proportion not participating in that month but participating in preceding months, and

mo = proportion not participating in that month and also not participating in other months.

Thus, 1 - mo = total proportion participating in the course of a year (where MO + Mo + mO +mo = 1).

From the general SPA questions (see Table 2.1), we have estimates both of mO, and of the joint sum of MO and Mo. Our problem is to untangle these variables and get separate estimates of MO and of Mo. Therefore, a set of questions was inserted in the November and December 1982 surveys asking about participation in the prior 11 months; the purpose of these questions was to generate separate figures for MO and Mo.

Adding MO to mO provides an independent estimate of O (since MO + mO =O). Subtracting this value of O from 1 provides an independent value of o and this value is entered into the equation for yearly participation, which is 1-mo.

This independent "theoretical" estimate (1-mo) can then be compared with actual responses to the survey question "Did you participate in the last year?"

As shown in the last column of Table 4.2, the estimated ratio from these monthly data indicates about a 20% higher attendance rate for jazz performances for the year than was actually obtained, indicating that respondents may exaggerate their reported monthly participation, or underreport their yearly participation, in response to the initial attendance questions in the survey. The final columns in Table 4.2 show inflated monthly estimates of about the same magnitude for the other basic arts questions examined in Chapter 3.

Another way of examining these findings is to show the overlap (between the prior month and the 11 months before that month) proportions that would be consistent with the monthly and annual estimates, and to compare these with the actual overlap estimates from respondents. Accordingly, if it were the case that 9.5% of the population went to a jazz performance in the last year and 3.0% went in the last month, the necessary condition for this to hold (according to probability theory) would be for only 10% of those who attended in the prior month to have also attended in the prior 11 months. However, as can be seen in Table 4.2, among those respondents who said they had attended a jazz performance in the prior month, al-

TABLE 4.2: Consistency of Annual and Monthly Estimates (SPA'82 Data)

	a	b	c	d	e	f	g	h	INFLATION RATIO
	YEARLY-	MONTHLY	= YR-MO	+MOxESTIMATE(O)	=o	O	O x M	= 1-om	
	(m+O)	(m)		(m)					h ÷ a
Jazz	.095	.030	.065	+.030 x .73	.087	.913	.913 x.970	.114	+20%
Classical	.130	.044	.086	+.044 x .75	.119	.881	.881 x.956	.158	+22%
Opera	.030	.008	.022	+.008 x .64	.027	.973	.973 x.992	.035	+17%
Musicals	.186	.050	.136	+.050 x .79	.176	.824	.824 x.950	.217	+17%
Plays	.119	.030	.089	+.030 x .77	.112	.888	.888 x.970	.139	+17%
Ballet	.042	.011	.031	+.011 x .69	.039	.961	.961 x.989	.050	+19%
Galleries/ Museums	.221	.075	.146	+.075 x .79	.205	.795	.795 x.925	.265	+20%

EXAMPLE:

For Jazz: the YEARLY ESTIMATE is .095 and the MONTHLY ESTIMATE is .030.
This means that the proportion not attending last month is .970
The proportion attending only in the prior 11 months is
o=[.095 - .030 = .065]
which should be added to EST [O] for the preceding 11 months; or
.065 + .030 [.73] = .087, which leads to the:
Estimated proportion not attending in the prior 11 months, which is o= .913

The ESTIMATED YEARLY attendance is 1-MO = 1- [.970] [.913]= 1-.886 which is .114 or an 11.4% ESTIMATED PARTICIPATION in the last year. Compared to the 9.5% survey response in straightforward question in Table 3.2, this is a 20% overreporting ratio.

most three-quarters (73%) said they had attended in the prior 11 months. That is over 7 times the likelihood allowable within the constraints of the probability model.

The theoretical figures are equally divergent for the other core activities: 9% allowable for classical performance (vs. 75% respondent estimate), 10% for opera (vs. 64%), 14% for musicals (vs. 79%), 10% for plays (vs. 77%), 3% for ballet (vs. 69%), and 16% for art galleries and museums (vs. 79%). These discrepancies are consistent with the view of dramatic "telescoping" of respondent estimates to recent periods, i.e., the reporting of earlier attendance as having occurred in the prior month, thus creating a severe inflation of the participation rate for the month. At the same time, they would also be consistent with a model that treated the annual estimates as underreporting actual participation over the year. This problem is especially unfortunate because it leaves ambiguous the use of the estimates of frequency of attendance for the prior month, which followed the monthly participation question.*

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* In terms of translating the monthly frequency data into "head count" figures, the following tabulation provides the frequencies of monthly attendance per number of participants -- using the weights in parentheses.

Answer Category: Weight:	One (1)	2-3 (2.5)	4-5 (4.5)	6 or more (8)	Times per Month 1982	 (1985)
Jazz	351	122	22	16	1.55	(1.56)
Classical	569	162	29	22	1.64	(1.59)
Opera	113	20	4	4	1.51	(1.37)
Musicals	715	145	11	8	1.36	(1.43)
Plays	437	93	6	6	1.37	(1.48)
Ballet	157	27	2	0	1.25	(1.30)
Art Gallery/Museums	893	312	56	43	1.74	(1.78)

In other words, not only was attending art galleries and museums mentioned by more respondents than other activities, but those who reported participating in that activity reported participating more often (1.74 times per participant per month in SPA'82 and SPA'85) than participants in other activities. Attending classical concerts was also higher on a per participant basis (1.64 times per participant per month) while attending ballet (1.25 times per participant) was at the lower end of the frequency range in SPA'82.

This situation is particularly important because these frequency questions provide the only basis from the present data for estimating total volume of arts participation (i.e., taking account not only of the proportion of participants, but also of the number of times each participant attends). That is, theoretically at least, the only way in which survey figures could be compared with aggregate ticket sales or other audience data from institutions, since such aggregate data which do not distinguish between two attenders and a single attender who attends twice.

C) COMPARISONS WITH AGGREGATE ATTENDANCE DATA

Perhaps the most appropriate comparison of the core attendance data in Chapter 3 would be with the audience "head count" admissions (box office) data compiled by arts organizations. However, this is perhaps the most difficult of comparisons to make with much statistical confidence, as has been noted by several observers (e.g., Toffler 1965; Ennis 1972; Robinson 1976).

First, the "head count", "box office" or "tickets sold" admissions data are collected and maintained differently across organizations. These may include tickets sold rather than persons attending, thus inflating the actual attendance rate. These may or may not include complimentary tickets given to reviewers, performers or other associates. More fundamentally, ticket sales or admissions data do not reflect multiple attendance by the same individual. One individual who attends five opera performances is not distinguishable from five separate individuals attending once. Moreover, what is being considered as an opera performance? What if the opera organization presents an operetta, or two leading opera performers simply singing duets and arias? Are head counts or admissions data for summertime outdoor performances included? The methodological problems become increasingly complex when other forms of art performances (e.g., dance or theatre) are considered.

In fact, one of the main reasons for conducting a general population survey such as the SPA was to put these relative attendance figures in somewhat clearer perspective. Making the individual the unit of analysis imposes a form of standardization that is far less arbitrary than attempting to resolve the diverse methods various arts organizations use to measure their audiences from admissions receipts or box office numbers. There-

TABLE 4.3: Aggregate Arts Participation Data

No. 402. Performing Arts—Selected Data: 1970 to 1984

[Receipts and expenditures in millions of dollars. For season ending in year shown, except as indicated]

Item	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Legitimate theater: [1]											
Broadway shows:											
New productions	62	59	62	63	54	47	67	67	53	50	36
Playing weeks [2] [3]	1,047	1,101	1,136	1,348	1,360	1,472	1,541	1,545	1,461	1,259	1,119
Number of tickets sold (1,000)	(NA)	(NA)	7,181	8,815	8,621	9,115	9,380	10,822	10,694	8,102	7,898
Gross box office receipts	53.3	57.4	70.8	93.4	103.8	128.1	143.4	194.5	221.2	203.1	226.5
Road shows:											
Playing weeks [3]	1,024	799	814	987	1,025	1,182	1,351	1,343	1,317	980	1,057
Gross box office receipts	48.0	50.9	52.6	82.6	106.0	148.9	181.2	218.9	249.5	184.3	206.2
Opera companies [4]	648	807	913	914	966	980	986	1,019	993	1,031	1,061
Major	35	54	65	68	78	95	100	127	133	144	164
Expenditures	36.5	(NA)	71.8	79.7	96.3	111.5	133.6	161.6	191.1	212.4	236.7
Other companies	266	336	412	424	468	466	468	456	416	488	491
Workshops	347	418	436	422	420	419	419	436	444	399	406
Opera performances	4,779	6,429	7,109	7,388	7,806	8,584	9,391	9,093	9,510	10,683	10,421
Operas performed	341	387	427	427	448	499	497	559	571	580	576
Musical performances [5]	(NA)	(NA)	(NA)	(NA)	906	1,430	1,397	2,251	2,230	2,749	2,787
Musicals performed [5]	(NA)	(NA)	(NA)	(NA)	43	72	104	118	122	120	129
World premieres	17	16	45	33	42	94	79	88	94	86	101
Attendance (mil.)	4.6	8.0	8.9	9.2	9.8	9.9	10.7	11.1	10.1	12.7	13.0
Symphony orchestras [6]	1,441	1,463	1,410	1,463	1,470	1,540	1,572	1,572	1,572	1,572	1,572
College	298	300	356	356	278	379	385	385	385	386	390
Community [7]	1,019	1,003	872	898	950	909	926	926	919	920	937
Urban	24	41	56	69	76	79	85	85	94	101	89
Metropolitan	72	90	79	86	106	113	115	115	110	98	86
Regional	(8)	(8)	16	23	29	29	29	30	34	37	40
Major	28	29	31	31	31	31	32	31	30	30	30
Concerts	6,599	14,171	14,776	17,421	18,027	22,096	22,229	19,327	18,204	19,167	19,096
Attendance (mil.)	12.7	18.3	20.0	21.0	21.4	22.4	22.6	22.8	22.0	22.0	23.2
Gross income	73.3	124.5	137.0	154.1	178.1	216.8	246.3	289.0	325.5	348.9	379.0
Earned income	43.1	70.9	78.3	89.0	102.5	122.6	141.2	163.3	187.6	201.8	220.2
Contributed income	30.2	53.6	58.7	65.1	75.6	94.2	105.1	125.6	137.9	147.1	158.8
Gross expense	78.4	129.6	141.5	160.9	183.1	221.0	252.1	290.3	316.3	352.2	388.8

NA Not available. [1] Source: *Variety*, New York, NY, June 6, 1985 issue (copyright). [2] All shows (new productions and holdovers from previous seasons). [3] Eight performances constitute one playing week. [4] Source: Central Opera Service, New York, NY. *Central Opera Service Bulletin*, periodic. Major companies have annual budgets of $100,000 or more and issue American Guild of Musical Artists (AGMA) contracts to soloists. Workshops are primarily college and university opera groups.

[5] Covers not-for-profit companies only. [6] Source: American Symphony Orchestra League, Inc., Washington, DC. For years ending Aug. 31. Orchestras other than college groups are principally defined by their annual budgets: As of 1984, community, under $125,000; urban, $125,000–$265,000; metropolitan, $265,000–$950,000; regional, $950,000–$3,400,000; and major, over $3,400,000: Prior to 1984, other budget classifications were in effect. [7] Beginning 1978, includes youth and chamber groups with budgets under $70,000. [8] Classification began in 1976.

Source: Compiled from sources listed in footnotes.

(Source: 1986 Statistical Abstract, p. 236) fore, one should not be surprised to find arts attendance figures in Table 4.3 that diverge significantly from data in the SPA.

These aggregate figures for various types of arts performances shown in Table 4.3 are subject to many problems when compared to what might appear to be their counterpart attendance reports in Chapter 3. Some of the figures in this U.S. government report include attendance by the under 11 age group, which can only be measured indirectly in SPA'85. Some figures include amateur arts events, others do not. Many of the Table 4.3 figures are disseminated by arts organizations who count their patronage using alternative methods.

Here again, then, discrepancies can be due to different definitions, observational procedures and units of analysis. If measurements of the two behaviors were more closely coordinated, closer survey participation figures to those in Table 4.3 would undoubtedly be found. For example, a community survey could be designed that would closely list activity participation questions with actual observations of the audience for particular arts events. That would seem a worthwhile goal for further research.

D) COMPARISONS TO ATTENDANCE DATA FROM OTHER SURVEYS

The Survey of Public Participation in the Arts was not the first or the only national survey to obtain data on the extent of attendance at arts performances. The Louis Harris Organization conducted one of the first national surveys of arts participation in 1973. A second large scale survey was conducted by HUMRRO in the South, and these and other data are reported in Reed and Marsden (1980), Orend (1980) and in a 1983 National Endowment for the Arts report.*

A comparison of these various survey estimates is given in Table 4.4. It can be seen that the SPA data tend to be consistently lower than those obtained in these earlier surveys. First, the Harris survey obtained a 28% figure for attendance at either concerts or opera; combining the SPA'85 data for these art forms gave an estimate of only about half that figure -- about 14%. Similarly, for attendance at ballet and modern dance, arts museums, science museums and historic buildings, the Harris figure -- collected 10 years previously from a national population with less formal education -- are almost twice as high. The figures for live theatre are closer (33% vs. 22%), but the Harris data are still significantly higher.

The Harris Organization has subsequently completed three other national studies, beginning in 1975, repeated in 1980 and repeated most recently in 1984. A comparison of the 1980 and 1984 surveys provides an appropriate comparison to SPA'82 and SPA'85. That comparison, as described in much more detail in Appendix B of the 1982 report, also shows the Harris attendance and participation figures to be significantly higher than those in the SPA.

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* For a comparison of SPA'82 data with results of arts surveys conducted in other countries, the reader is referred to Chapter 4 of the SPA'82 final report, "Public Participation in the Arts: Final Report on the 1982 Survey."

Estimated attendance by Southerners was also higher in the 1977 study of arts participation in the South than was found among Southern respondents in the SPA'85. But the variations with that study are not as large as those with the Harris data -- between 3 and 7 percentage points for six of the seven items, and 9 percentage points for the seventh item (painting and art exhibits). Moreover, this latter figure may be lower in the SPA, because of definitional differences: the SPA data do not include paintings or art exhibits attended outside of museums or galleries, and that may account for the lower figures.

TABLE 4.4: Comparison of SPA'85 to Other Domestic Surveys: Percentages Reporting Attendance in the Past Year

a) Harris (1973)		SPA'85
Concerts or Opera	28%	14%
Live Theatre	33%	22%*
Ballet or Modern Dance	9%	5%**
Art Museums	50%	22%
Science Museums	51%	23%
Historic Buildings/Museum	58%	36%

* Includes musicals and non-musicals from the SPA
** Estimate indicates data from University of Maryland follow-up study on attendance at modern dance performances.

b) Arts Participation in the South (1977)		SPA'85 South	SPA'85 National
Jazz Performance	13	9	(10)
Symphony or Chamber Music	17	10	(13)
Opera	6	2	(3)
Go to Theatre	26	23*****	(22)*****
Ballet or Modern Dance	9	4	(4)
Painting, Art Exhibit	34	25***	(27)
Tour Buildings/Museum	48	44****	(42)

*** Includes visiting art galleries or museums and painting.
**** Includes two questions in the SPA, one on visits to science, natural history and other museums and one on visits to historic places.
***** Includes attendance at plays and/or musicals.

E) ALTERNATIVE SIGNIFICANCE TESTS OF DEMOGRAPHIC FACTORS RELATIONS TO ATTENDANCE: LOGIT-PROBIT ANALYSIS APPLIED TO SPA'82 DATA

In order to test properly for the significance levels of the relation of background factors and attendance, a special multiple regression program called Probit Analysis was conducted. Probit analysis is especially designed for situations in which the dependent (predicted) variable has only two categories (such as attenders vs. non-attenders) and has values above .90 or below .10. That means it would be particularly appropriate for dependent variables such as opera or ballet attendance, for which less than 5% of the SPA respondents said they had attended; and it may be useful as well for jazz, classical music and play attendance for which only about 10% of the sample reported attended.

Table 4.5 shows the t-statistic values for the probit analysis on the basic attendance data in comparison to the usual significance test via ordinary least squares (OLS). An obtained value of t greater than about +2.0 is significant at the .05 level of chance, about 2.5 at the .01 level, 7.0 at the .0000000001 level and 15 at the .1 x 10 -30 level. Several conclusions from the table emerge:

1) Education continues to be far and away the most statistically significant predictor of all forms of arts attendance.

2) Age is a significant predictor of attendance at jazz, classical music, opera, musicals and play performances; probit analysis, (but not OLS) suggests it is important for art museum attendance as well.

3) Gender is a significant predictor, except for jazz performances.

4) Race is a significant predictor, although least so for opera performances.

5) Income is a significant predictor for musicals, less so for plays and art museums; it is barely so for classical music and for ballet, and not a significant predictor at all for opera.

TABLE 4.5: Demographic Predictors of Arts Attendance: Probit Analyses and Ordinary Least Squares t-Values (SPA'82 Data)

a) Probit Analysis t values

	JAZZ	CLASSICAL	OPERA	MUSICALS	PLAYS	BALLET	ART MUSEUMS
Income	.3	3**	1.9	12***	7***	2.7**	7***
Age	18***	6**	7**	5**	5**	.1	3**
Education	21****	37****	18****	36****	34****	21****	42****
Gender	.4	11***	4**	11***	8***	12***	8***
Race	7***	6**	2.4*	7***	6**	4**	5**

b) Ordinary Least Squares t values

Income	3**	2.5*	1.8	11***	6**	1.9	6**
Age	16***	9***	7***	7***	7***	1.3	.1
Education	22****	40****	19****	38****	37****	22****	46****
Gender	.6	9***	4**	10***	8***	11***	8***
Race	7***	5***	1.6	5**	5**	3**	4**

**** Significant beyond .0000000000000001 level
*** Significant beyond .0000000001 level
** Significant beyond .01 level
* Significant beyond .05 level

Virtually the same conclusions are reached by this probit analysis, then, as by the usual OLS procedures. Some exceptions are that the probit analysis suggests that income is a significant predictor of ballet attendance while OLS does not, and that age is a significant predictor of art museum attendance, while OLS does not. On the other hand, probit analysis suggests that income is not a significant predictor of jazz attendance, while OLS suggested it is a statistically significant predictor.

In relation to the Table 3.4 analysis, probit analysis indicates that the slight income effects of jazz attendance are not significant, but that income effects are significant for classical music, ballet and art museum attendance. It confirms the significance of the modest differences by age, gender, and race, many of which show up as less than 2 percentage point differences in Table 3.3.

F) FACILITY DIFFERENCES IN TYPES OF PERFORMANCES

The seven types of performances examined in Chapter 3 take place in different types of facilities. Some facility patterns for some types of arts are obvious, such as classical music performances that take place in concert halls, art displays that are shown in galleries and museums, and jazz performances that take place in nightclubs.

Nonetheless, much "blending" of arts performance types occurs across types of facilities (such as when jazz is played in concert halls) and any trend in multiple facility use for arts across time would be a situation worth monitoring. Beyond these obvious performance/location patterns, then, there are interesting differences and similarities in where different performances are held and that was the purpose of including a specific SPA question on location/facilities of performances in the April 1985 survey. Such data were available, then, for about a sixth of the total sample. The facility questions are shown in Exhibit 4.1.

These differences and similarities in response to these questions are shown in Tables 4.6a and 4.6b in two formats. The reason for the two formats is that the responses for location/facility questions for all arts performances that each respondent attended were combined, rather than recorded separately for each type of performance. Thus, if a respondent went to a jazz performance and to a ballet, it is impossible to determine with which location response in the follow-up facility question it was matched.

Each type of performance, then, could not be matched with the way the location question was asked in the survey. Our hypothetical respondent might have checked "nightclub" and "concert hall", but in analysis one cannot say for certain whether it was jazz or the ballet performance or the ballet that took place at the nightclub or at the concert hall.

Thus, in the first part of Table 4.6a, the data are arranged on a facility basis. This answers general questions such as, "What proportion of all respondents who mentioned attending a jazz performance also mentioned going to a college facility?" Again, that is not to say that it was the jazz performance that took place at the college facility for that 25% of respondents who said that they had, indeed, attended a jazz performance; some of these respondents also said they had attended an arts performance at a college facility (perhaps to see a ballet or a play, if they had also attended these arts performances). Thus, the figures for facilities in Table 4.6a cannot be targeted to specific performances.

The figures in Table 4.6b are more directly tied to specific types of facilities since they include respondents who only went to jazz performances, or only to ballet. The limitation of Table 4.6b, however, is that it excludes respondents who went to more than one type of arts performance in the previous year (e.g. jazz and ballet; or jazz and opera). Moreover, the majority (about 55%) of attenders at one type of performance did mention attending another type of arts performance as well.

Nonetheless, there are clear convergences in the two sets of numbers. Thus, both tables agree that the major facilities and locations across all types of performances are in theatres (14% of all respondents), concert halls (12% of all respondents), college campuses (6%), open-air facilities (4%), nightclubs (4%) and churches (4%); relatively few live arts performances took place in YMCA's or libraries (less than 1%).

When cross-tabulated by performance type, the following patterns of art form by facility emerged:

Exhibit 4.1: Distribution of Responses to Jazz Performance Facilities Question (N=2151)

CHECK ITEM B

Look back at items 1 – 6. Are any of these items answered "Yes" AND contain an entry in boxes 1 – 5?

0 ☐ No – *Skip to 13a*

1 ☐ Yes – *Circle corresponding item number in the list below; then ask 12*

Item 1 – Jazz performances

Item 2 – Classical music performances

Item 3 – Operas

Item 4 – Musical plays

Item 5 – Non-musical plays

Item 6 – Ballets

12. *Read* –

► *FOR PERSONAL INTERVIEW*

Please look at the kinds of places listed on this card. *(Hand flashcard LAS-11.)* **Thinking back to the ________________, (and) ________________, (and), etc., you attended during the LAST 12 MONTHS, in which kinds of places were these performances held? Any other kind of place?** *(Mark all that apply.)*

► *FOR TELEPHONE INTERVIEW*

I'm going to read you a list of the kinds of places where performances are held. *(Read categories from flashcard LAS-11.)* **Thinking back to the ________________, (and), ________________, (and), etc., you attended during the LAST 12 MONTHS, in which kinds of places were these performances held? Any other kind of place?** *(Mark all that apply.)*

1 ☐	College facility	133
2 ☐	Elementary or high school facility	73
3 ☐	Church, synagogue, mosque, or other facility associated with a religious organization	77
4 ☐	The "Y" (YMCA, YWCA, YMHA, YWHA)	1
5 ☐	Concert hall, opera house, or auditorium	267
6 ☐	Theater or dinner theater	304
7 ☐	Night club or coffee house	84
8 ☐	Library	15
9 ☐	Museum or art gallery	55
10 ☐	Park or other open air facility	87
11 ☐	Other – *Specify* ________________	25

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1) Jazz performances tend to take place in concert halls, nightclubs and parks--and to a much lesser extent theatres and college facilities. They rarely take place in museums or in facilities such as YMCA's, libraries and museums.

2) Classical music performances take place mainly in concert halls. They also frequently take place in educational facilities (colleges, high schools and grade schools) and in churches. Like jazz performances they rarely take place in YMCA's, libraries or art museums.

3) To a far greater extent than classical music, operas take place in concert halls and auditoriums. Indeed, all those who only went to an opera performance attended at a concert hall or auditorium.

4) Musical theatre, unlike opera, takes place more often in theatres than in concert halls.

5) Like musicals, non-musical stage plays are more likely to be seen in theatres and, to a much lesser extent, in concert halls; unlike musicals, they are sometimes seen in college facilities as well.

6) Ballet performances are seen most often in concert halls. Ballet is also seen more often in outdoor locations than are musical or non-musical stage productions.

Tabulated on the reverse basis (which emphasizes the main types of performance that take place at educational facilities, YMCA's, etc.), certain other patterns appear:

1) College facilities are more frequently a locale for classical music and plays than for other art forms.

2) Schools are main performance areas for ballet and classical music.

3) Concert halls are used more for ballet and for opera than for other art forms.

4) Theatres are most often used for musical and non-musicals plays.

5) Nightclubs are not a major locale for most arts performances, outside of for jazz performances.

6) To the extent libraries are used, they are mainly a site for classical music performances.

7) Open-air and park facilities are most often used for opera and jazz performances, and less often for ballet and for musicals.

TABLE 4.6a: Facilities in Which Arts Performances Are Attended (Unweighted Percentages of Attendees Mentioning Each Type of Facility)

	Jazz	Music	Opera	Musicals	Plays	Ballet	TOTAL***
N =	(203)	(267)	(57)	(378)	(260)	(91)	(1256)
Location*							
College Facility	25%	32%	35%	20%	30%	30%	6%
Elementary, high school	9	17	9	11	14	17	3
Church, other religious	9	20	19	13	16	11	4
YMCA, YWCA, etc.	1	@	0	0	0	0	@
Concert hall, auditorium	48	58	83	42	43	77	12
Theatre, dinner theatre	33	36	54	63	62	39	14
Nightclub, coffee house	35	14	21	11	13	12	4
Library	3	5	5	2	4	7	1
Art Gallery/ museum	10	16	19	11	15	19	3
Park, open-air facility	28	16	19	11	13	20	4
Other	6	4	5	2	5	6	1

* Percentages within columns can exceed 100%, since multiple mentions were permitted.

** Interpretation: Of the 203 respondents who reported attending a jazz performance, 25% also reported attending some arts performances at a college facility (not necessarily a jazz performance).

*** Percent of total sample (1256) that attended performance at facility. Percent add to more than 40% (total attending any performance) because of possible multiple mentions.

@ Less than 0.5%.

In general, then, there is a good deal of "blending" across these types of facilities and types of performances, and this blending may well increase in the years ahead if convenient arts locations become shorter in supply or people are increasingly attracted to arts facilities serving multiple functions.

TABLE 4.6b: Facilities in Which Arts Performances Are Attended (Weighted Percentage of Respondents Attending Only One Type of Performance Mentioning Each Type of Facility)*

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet
N =	(1468)	(722)	(41)	(1859)	(661)	(146)
Location*						
College Facility	4%	12%	0%	5%	14%	7%
Elementary, high school	2	17	0	4	6	9
Church, other religious	0	15	0	7	4	0
YMCA, YWCA, etc.	0	0	0	0	0	0
Concert hall, auditorium	25	37	100	16	14	53
Theatre, dinner theatre	4	1	0	67	55	0
Nightclub, coffee house	31	4	0	2	0	0
Library	0	4	0	1	0	0
Art Gallery/ museum	2	3	0	0	2	0
Park, open-air facility	30	5	0	4	0	19
Other	11	4	0	1	3	0

* Interpretation: Of those respondents who only reported attending a jazz performance, 4% said they attended at a college facility.

** Percentages in each column may exceed 100% because of attendance at multiple facilities.

G) DIFFERENCES IN ATTENDANCE PATTERNS BY DETAILED GEOGRAPHICAL BREAKDOWNS

Chapter 3 presented differences in attendance patterns by the standard breakdown of the country into four geographic regions: Northeast, Northcentral, West and South. There was a further breakdown of the population into three categories on the SMSA variable within central cities of SMSA's, areas outside of central cities in SMSA's (mainly suburban populations) and non-SMSA areas.

Because of the strict guarantees of confidentiality observed by the U.S. Bureau of the Census with regard to respondent information, a special set of cross-tabulations and MCA's was prepared using the Census Bureau's computer (to maintain respondent confidentiality). The following 24-category breakdown by geography and urbanicity is used to show both regional and metropolitan area differences:

	Northeast	Northcentral	West	South
SMSA City	1 New York 3 Philadelphia 5 Boston area 6 Other cities	9 Detroit area 10 Chicago area 11 Other city	14 San Francisco -Bay area 15 L.A. area 16 Other city	19 Balt.-Washington 20 Houston-Dallas 21 Atlanta-Miami-Orlando 22 Other city
SMSA non-city	2 N.Y.suburbs 4 Philadelphia region 7 Other non-city	12 Other non city	17 Other non city	23 Other non city
Non-SMSA	8 Non SMSA in Northeast	13 Non SMSA in Northcentral	18 Non SMSA in West	24 Non SMSA in South

In order to further preserve respondent confidentiality, sample size information for each category was not provided by the Bureau of the Census, and thus it is impossible to say whether the differences observed in Table 4.7b are statistically significant or not. It also needs to be noted that this

Table 4.7a: Arts Participation by Regional-Metropolitan Locations: Percentages of Respondents Attending

	Jazz	Classical Music	Opera	Musical	Plays	Ballet	Art Gallery/ Museums	Reading
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	56%
Northeast								
1 N.Y.C	12	9	7	23	13	5	20	55
2 N.Y.C. suburbs	7	9	7	22	18	6	23	57
3 Phil.	10	15	9	31	21	6	27	70
4 Phil. suburbs	10	12	5	18	11	4	19	55
5 Boston area	8	17	4	24	9	9	26	61
6 Other NE,CC	15	13	2	15	11	4	22	53
7 Other NE,not CC	7	17	4	19	12	4	20	62
8 Other NE, not SMSA	13	13	4	15	15	4	16	59
Northcentral								
9 Detroit	17	15	3	16	12	5	22	54
10 Chicago	11	16	2	25	17	4	27	59
11 Other NC,CC	12	17	4	19	15	5	20	63
12 Other NC,not CC	14	16	2	21	13	5	25	61
13 Other NC,not SMSA	8	11	3	12	8	3	15	52
West								
14 Bay area	20	19	6	20	17	9	42	65
15 L.A. area	13	14	4	26	16	6	28	67
16 Other West, CC	15	19	7	21	15	8	37	74
17 Other West,not CC	12	15	5	20	14	4	32	68
18 Other West,notSMSA	9	9	5	11	9	3	21	67
South								
19 Balt-Wash area	15	15	5	23	17	7	26	74
20 Texas cities	12	14	6	18	15	7	31	52
21 Flor-Georgia	14	10	11	23	19	3	24	62
22 Other South, CC	12	11	3	14	12	4	25	58
23 Other South,notCC	9	12	3	18	12	5	22	56
24 Other South, not SMSA	7	6	2	7	6	2	11	43

* CC - SMSA Central City

national sample was not designed to be representative of respondents in these particular regional areas and may include some unknown bias due to uncontrolled sources of variation for that reason. The MCA controls, on the other hand, are intended to adjust for such disparities in types of people who live in these different areas.

Simple unadjusted differences in reported attendance percentages for each type of performance are shown in Table 4.7a. Table 4.7b, on the other hand, shows the differences across these 24 geographical regions after adjustment for education, age, sex, income, marital status, number of children, race and work hours.

With regard to jazz performances, it can be seen that after these adjustments, respondents in the Detroit and San Francisco Bay areas reported highest attendance, followed by respondents in other cities in the Northeast. These areas also showed above average attendance figures prior to adjustment as well in Table 4.7a. Areas or regions showing lowest attendance at jazz performances were the New York City suburbs and other suburban areas in the Northeast. After adjustment, attendance at jazz performances ranged from almost 17% in the Detroit and San Francisco areas to 6% in New York City suburbs.

After adjustment for other factors, the proportion of respondents reporting attendance at classical music performances was highest in Philadelphia, in larger areas in the Midwest and in smaller cities in the West. Most of these are differences that were apparent before adjustment. Lowest attendance at classical music performances was reported by residents of the New York City suburbs. Attendance varied between 17% in the Philadelphia area and 7% in the New York City suburbs.

Opera attendance was reported at a considerably higher rate among

Table 4.7b: MCA-Adjusted Arts Participation by Regional-Metropolitan Locations: Percentages of Respondents Attending

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	56%
Northeast								
1 N.Y.C.	12	11	7	26	15	5	24	60
2 N.Y.C. suburbs	6	7	6	19	16	5	20	54
3 Philadelphia area	11	17	9	31	22	6	28	68
4 Phil. regions	11	12	5	18	11	4	19	55
5 Boston area	8	15	3	21	14	8	22	58
6 Other NE, CC*	15	13	2	15	14	4	22	52
7 Other NE, not CC	7	16	2	17	12	4	18	60
8 Other NE, not SMSA	14	15	4	16	16	5	18	60
Northcentral								
9 Detroit	17	16	3	16	13	5	23	59
10 Chicago	10	14	2	23	15	4	24	58
11 Other NC,CC	11	16	4	19	15	5	21	61
12 Other NC,not CC	13	16	2	19	12	5	23	57
13 Other NC,not SMSA	9	13	3	14	9	4	17	54
West								
14 Bay area	17	15	5	16	13	7	36	59
15 L.A. area	12	13	5	25	15	5	26	65
16 Other West, CC	13	16	7	18	12	7	33	68
17 Other West,not CC	10	13	5	18	12	3	29	64
18 OtherWest,not SMSA	10	10	5	12	9	3	22	67
South								
19 Balt-Wash area	12	11	4	20	14	6	22	68
20 Texas cities	11	12	5	17	13	7	29	51
21 Flor-Georgia cities	13	11	11	24	19	3	25	63
22 Other South, CC	11	12	3	15	12	5	26	60
23 Other South,nonCC	9	12	2	17	11	5	21	55
24 OtherSouth,not SMSA	9	10	3	11	9	3	16	50

* CC - SMSA Central City

residents of the Atlanta-Miami-Tampa areas and in Philadelphia and New York cities. It was also above average in smaller cities in Western areas. It was below average in smaller cities and suburbs located outside the West. Attendance percentages ranged between almost 11% in the Florida-Georgia cities to 2% in smaller suburban areas in the Northeast, Northcentral and South.

The unadjusted attendance rate at operettas and other musical productions is far higher for residents of the urban Northeast corridor areas (Boston, New York, Philadelphia, Baltimore-Washington). It is also higher among residents of the Florida-Georgia cities, Chicago and Los Angeles. Attending such musical performances is lowest in non-SMSA areas particularly in the South. Attendance figures vary between 31% in Philadelphia and less than 12% in the non-SMSA areas in the West and South.

Unadjusted rates of attending (non-musical) stage plays are once again higher among residents in the city of Philadelphia and in New York City suburbs, Baltimore-Washington, Chicago and Atlanta-Miami-Tampa, as well as in the Bay area. It is lowest in non-SMSA areas outside the Northeast. Attendance at plays ranges from over 21% in the city of Philadelphia to just over 6% among residents of non-SMSA areas in the South.

Residents of the Boston and San Francisco Bay areas report highest rates of ballet attendance. Unadjusted attendance varies between about 9% in the Boston and San Francisco Bay areas and 2% in non-SMSA areas in the South.

Visiting art galleries and museums is reported at higher rates among residents in such larger cities as San Francisco, Philadelphia, Boston and Houston-Dallas-Fort Worth; it is higher in smaller cities in the West and South. It is below average in non-SMSA areas in the South, Northeast and

Northcentral regions. Unadjusted attendance at art museums and galleries varies between 42% in the San Francisco Bay area and 11% in non-SMSA areas in the South.

Differences in proportions reading novels, poetry, short stories and plays are relatively smaller than for the attendance data for live performances. Highest literature reading rates (again adjusted for education and other factors) were reported by respondents in Philadelphia, Baltimore-Washington and less metropolitan areas in the West. Lowest reading rates were reported in Houston-Dallas-Fort Worth and in the non-SMSA areas in the South. Percentages reading novels, short stories, etc. varied from 74% in Baltimore-Washington and in Western smaller cities to 16% in non-SMSA areas in the South and Northcentral regions.

Overall, then, the most distinctive area as far as arts participation is concerned was the San Francisco area. Somewhat surprisingly, New York City residents reported only slightly above average rates across arts activities. Residents of Detroit and San Francisco areas again reported highest attendance rates at jazz performances. Bay area residents were also well above average in attending classical music performances, ballet and art galleries. Residents of Philadelphia and Atlanta-Miami-Tampa areas were above average in attending opera, musicals and plays. Residents in Baltimore-Washington, Philadelphia and smaller cities in the West reported highest rates of reading literature.

H) DIFFERENCES IN REPORTED PARTICIPATION BY DETAILED OCCUPATIONAL CATEGORIES: A PRELIMINARY EXPLORATORY ANALYSIS

Occupation was one of the major predictor variables examined in Chapter 3. However, the broad 12-category occupational code used in Chapter 3 obviously obscures many important variations by occupational classification. This would seem especially true within the "professional" category, which includes occupations as diverse as doctors, engineers, clergymen and entertainers.

Given this diversity within the 12 based occupational categories and the unusually large sample that allowed more detailed breakdowns, a preliminary study of some of the broader variations in arts participation was conducted taking advantage of the detailed Census Bureau occupation code employed in this survey. In order to keep this exploratory analysis manageable, the 500+ code categories that the Census Bureau employs to code occupation were recombined at the University of Maryland into 58 broader categories. This includes more than 50 such detailed occupational groups as carpenters, office secretaries, accountants, etc. One final category included all respondents who were not in the paid labor force;this category thus includes full-time homemakers and students as well as retired and disabled people.

These 58 broad groupings were developed around the following general criteria:

1) Each group should represent a substantial number of respondents -- generally around 1% of the labor force.

2) Each group should combine individuals in similar occupational categories in the Census Bureau codes (e.g., chemical engineers with civil engineers, auto mechanics with office machine repairment, truck drivers with bus drivers), as these are grouped in the 500+ detailed occupation code that the Census Bureau has developed (see Appendix B).

Table 4.8 Unadjusted and MCA-Adjusted Rates of Overall Attendance at Arts Events by Detailed Occupational Codes

(For occupational definitions, see text and Appendix B)

	Grand Mean	0.79	0.79
	Occupation:*		
		Unadjusted	Adjusted
	Professional		
1)	Arts-Related	2.10	1.67
2)	College Teachers	2.60	1.53
3)	Librarians	2.20	1.44
4)	Physician or Scientist	1.98	1.18
5)	Social Scientists	3.19	2.22
6)	Lawyers, Judges	2.58	1.47
7)	Physicians	1.95	0.92
8)	Secondary School Teachers	1.73	0.87
9)	Primary School Teachers	1.59	0.72
10)	Counseling	1.80	1.08
11)	Nurses	1.29	0.80
12)	Computer Specialists	1.70	0.97
13)	Engineers	1.61	0.89
14)	Health Technician	1.03	0.81
15)	Engineering Technician	0.86	0.69
16)	Other Technicians	1.25	0.90
	Managerial		
17)	Accountants	1.34	0.77
18)	Administrators	2.04	1.31
19)	Managers	1.44	1.05
20)	Restaurant Manager	1.28	0.96
	Sales/Clerical		
21)	Advertising	1.16	0.92
22)	Other Sales	0.87	0.79
23)	Sales Clerk Retail	0.95	1.06
24)	Supervisors	0.99	0.86
25)	Public Contact	0.73	0.77
26)	Secretarial	1.07	1.05
27)	Communication	0.64	0.68
28)	Record Keepers	0.74	0.76
29)	Machine Operators	0.86	0.82
30)	Other Clerical	1.01	1.00
	Skilled		
31)	Artisans	0.57	0.76
32)	Foreman	0.58	0.67
33)	Carpenters	0.36	0.52
34)	Painters	0.50	0.69
35)	Electricians	0.55	0.62
36)	Plumbers	0.30	0.44
37)	Auto Mechanics	0.44	0.64
38)	Other Mechanics	0.40	0.65
	Semi-Skilled (Operative)		
39)	Other craftsmen/Apprentices	0.42	0.67
40)	Precision	0.28	0.46
41)	Textile	0.23	0.58
42)	Other Operatives	0.36	0.61
43)	Cab Drivers	0.40	0.42
44)	Truck Drivers	0.42	0.68
45)	Other Transport	0.37	0.60
46)	Other Laborers	0.35	0.58
	Farm		
47)	Farmers	0.40	0.59
48)	Farm Labor	0.15	0.50
	Service		
49)	Waiters	0.79	0.80
50)	Protective	0.73	0.68
51)	Health Aides	0.65	0.77
52)	Other Food Related	0.69	0.86
53)	Private Household	0.25	0.62
54)	Attendants	0.76	0.89
55)	Cleaning	0.25	0.58
56)	Personalised Attendants	0.60	0.77
57)	All Other Occupations	0.97	0.79
58)	Non-Labor Force	0.54	0.75

*See Text and Appendix B.

3) Combinations should be made only within the existing 12 broad Census Bureau master categories; that is, insurance agents and advertising agents were kept in the same "sales" category, even though our groping of occupations separated both of these personnel from retail sales clerks (sales clerks are another occupational group in the general sales category of the Census occupation listing as shown in Appendix B).

The 58 categories that we developed within these guidelines are shown in Table 4.8, with the Census Bureau categories that each includes explicitly defined in Appendix B.

This recoding scheme for the original 500+ occupation categories used by the Census Bureau in Appendix B maintains the following kinds of distinctions:

-Within professionals, there are 16 different categories that range from arts-related professionals (e.g., musicians, artists) to counseling professionals (e.g., social workers, ministers) to engineers to nurses; note that social scientists are kept separate from physical scientists, as are elementary from high school from college teachers; and health technicians from engineering technicians from other kinds of technicians.

-Within the managerial category, administrators and officers are kept separate from managers -- and accountants separate from other types of managers and administrators.

-Within the sales category, retail sales clerks are kept separate from advertising/insurance/real estate sales workers, as well as from other types of sales workers.

-Within the clerical category, separate categories are provided for secretaries, for receptionists, for communication workers (e.g., telephone operators) and for "record keepers" (e.g. bookkeepers).

-Within the skilled crafts category -- auto mechanics, carpenters, plumbers, electricians, etc. -- are kept in separate categories, as are all apprentice categories. A separate category was created for "artisans", which includes jewelers, decorators, sign painters, etc.

-Within the "operative", semi-skilled blue collar category, precision machine operators are kept separate from textile workers , from transportation workers (such as cab drivers, truck drivers or other transport workers), and from laborers.

-Farm laborers are kept separate from farm owners.

-With regard to service workers, eight different categories are distinguished: waiters; protective (police, army, etc.); health aides; other food workers (dishwashers, etc.); private household; attendants with minimal training (such as bootblacks or elevator operators); cleaning; and "personalized service attendants". In this last category, we have included cooks, bartenders, practical nurses, airline stewardesses, hairdressers, etc., or those employed in service work that seems to involve a greater amount of specialized and skilled service.

The "other" category (code 57) includes workers not classified into any of the above categories, while code 58 groups all non-employed respondents.

Arts participation was measured in terms of the straightforward Chapter 3 index of how many of the seven types of arts events the respondent attended. A respondent who went to an opera and to a stage play would obtain a score of two. Possible scores on the index range from zero (which was the score obtained by 60% of respondents) to seven (if the respondent attended all seven types of arts performances). As noted at the top of Table 4.8, the overall average number of performance types attended was less than one (0.798 to be more precise). The mainly at-home activity of reading was thus excluded for this analysis.

In the first column of Table 4.8, it can be seen that prior to adjustment for education, index scores across occupations vary between 3.19 for social scientists and .15 for farm laborers. Within each of the major occupational categories, some further notable differences are found, before adjustment for other factors.

-Professionals show the most internal variation. Index scores range from 3.19 for social scientists, 2.60 for college teachers, and 2.58 for lawyers/judges at the top, down through to the engineering technicians (.86), health technicians (1.03) and other technicians (1.25).

-Administrators (2.04) were higher on the index than managers (1.44) or accountants (1.34).

-Specialized sales workers (in real estate, insurance or advertising) were higher on the index (1.16) than other sales workers (.87) and retail sales clerks (.95).

- Secretaries (1.07) were higher than other clerical workers on the index, especially those in record-keeping jobs (.74) and communication (.64).

- While most skilled and semi-skilled (blue-collar) workers score in the .40 to .60 range on the index, textile operatives were at .23.

- Only two service worker categories (private household and cleaning personnel) were as low on the participation index as workers in lower blue-collar occupations. Most service workers were in the .60 to .80 range.

In general, then, there are important variations in attendance patterns within the broad occupational categories in Chapter 3 that need to be considered in assessing the role occupation plays in arts participation.

However, not all of these differences remain after statistically controlling for the respondent's education, as shown in the second column in Table 4.8. After both factors are controlled simultaneously, the overall differences in arts participation explained by occupation drops by 50%, while that for education drops only by about 10%.

Some of the more distinctive occupation categories in terms of arts participation after MCA control can be described as follows:

	Professional	Other White Collar	Blue Collar	Service Workers
Very high (over 1.50)	.Arts-related .College teachers .Social scientists	--	--	--
High (.90-1.50)	.Lawyers .Librarians	.Ad, insurance, etc. sales .Secretarial .Retail sales clerks	--	.Attendants
Low (below .90)	.Engineering technicians .Health technicians .School teachers .Nurses	--	.Farm laborer .Cab driver .Plumber .Carpenters	.Cleaning

In other words, most of the variation in blue collar and service categories is eliminated after controlling for education, with no such groups scoring less than about .40 on the index after control. Technicians, school teachers and nurses are markedly lower than other professionals, especially professionals in the arts and humanities and social sciences -- and college teachers in general. Thus, technicians appear more similar to blue-collar workers than to most professionals in terms of their arts participation.

I) DIFFERENCES IN ARTS PARTICIPATION BY OTHER BACKGROUND FACTORS

The larger Census.Bureau Survey regularly collects background information from respondents on a wide variety of topics. Chapter 3 has examined the 11 factors that seemed most relevant to arts participation, such as education, age, family composition, etc.. In this chapter, we have already examined several other factors (month of survey, geography, and occupation) in more detail.

This section examines eight additional background variables in the Census Bureau Survey for which variation in arts participation can be examined. Most of these have to do with characteristics of the dwelling unit in which the respondent resides: What is the number of adults living in the household? Is the household a single-family dwelling unit (house) that stands alone, or (if not) is it a duplex, row house or part of an apartment complex? Is it a mobile home? Is it being rented or bought?

Other questions ask about household possessions related to the dwelling unit, such as automobiles or telephones. Information is also available on the size of the municipal unit (not the larger metropolitan area) in which the respondent lives: Do the boundaries of that municipal unit include over a million people or less than 200? Most SMSA areas included several municipal units of varying size. One municipal unit (suburban areas) ringing a city may have upwards of 100,000 people; it may be adjacent to a second municipal unit that has a size of place of less than 100 people. These were not separated in the SMSA code used in Chapter 3.

Other factors include whether the respondent is a member of the armed forces or not, or whether the interview was conducted over the phone or in person.

TABLE 4.9a: Arts Participation Indices by Other Background Factors

Grand Mean: .79

Telephone in housing unit	
Yes, in the unit	.82
Yes, outside unit	.75
No phone connection	.25
Automobiles	
None	.56
One	.78
Two	.84
Three	.85
Four or more	.77
Housing Units in Building	
One, single-family	.78
Two	.77
Three	.68
Four	.75
Five to nine	.74
Ten or more	1.12
Mobile home, trailer	.27
Only other units	1.76
Type of Dwelling Unit	
House,apt,flat	.81
Non-transient hotel	1.13
Perm house, trans hotel	.31
Rooming house unit	.01
Mobile home, trailer	.26
Other housing unit	1.66
Housing Tenure	
Owner	.79
Renter	.79
Other	.68
Type of Interview	
Personal	.77
Telephone	.88
Armed Forces Member	
Yes	.98
No	.84
Not ascertained	.53

Relative	
Reference person	.78
Spouse of ref person	.82
Own child	.68
Other relative	.38
Nonrelative	1.21
Number of Adults Over 18 Years of Age	
One	.92
Two	.80
Three	.69
Four	.72
Five	.48
Six or more	.41
Population	
Under 200	.30
200 to 499	.78
500 to 999	.32
1,000 to 1,499	.35
1,500 to 1,999	.38
2,000 to 2,499	.52
2,500 to 4,999	.60
5,000 to 9,999	.80
10,000 to 19,999	.82
20,000 to 24,999	.70
25,000 to 49,999	1.02
50,000 to 99,999	.94
100,000 to 249,999	.87
250,000 to 499,999	1.10
500,000 to 999,999	.92
1,000,000 or more	.89
Unincorporated area	.69

Table 4.9 examines variation in the index of participation in the seven core activities in Chapter 3 by these ten factors, both before adjustment (Table 4.9a) and after adjustment for five major factors (age, education, ethnic-racial group, income and urbanicity) in Table 4.9b. The adjusted figures in Table 4.9b reveal the following patterns:

> Household Type: Arts attendance is very slightly higher overall among residents of multiple family units (mainly apartments) than among residents of "detached single-family units" (i.e., houses) or mobile homes than in multiple family units. And there is some tendency for overall attendance to be higher in progressively larger apartment buildings: from .79 in two-unit structures to .67 in three-unit structures to .91 for apartment buildings with more than 10 units. These pattern differences in Table 4.9 once again hold after control for age, income, education, and urban-rural differences between house and apartment dwellers. Such a systematic and regular pattern suggests a role that attending arts performances may play in allowing residents of larger apartments to "get away" from their more uniform residences to attend culture in more spacious surroundings. (There are too few respondents living in transient hotels, rooming houses, etc. to know whether living in these types of facilities relate to participation with much certainty).
>
> Household Tenure: Individuals who own or are buying their homes attend arts events at about the same rate on the index as people who rent. This difference again holds after control for income and type of household.
>
> Automobile Ownership: Ownership of automobiles appears to have no direct or systematic relation to attending arts performances, after adjustment for other factors.
>
> Telephone Ownership: Respondents who had no telephone in their housing unit reported a lower participation rate than respondents who had a telephone in their housing unit. Thus, telephone ownership seems a more important factor in higher arts attendance rates than car ownership. After control for other factors, however, this difference was reduced to less than a 10% differential.
>
> Household Size: Respondents living in households with more adults (over age 18) report lower participation than those with fewer adults in the household. After adjustment, the pattern in index scores is as follows: one adult only (1.01), two to four adults in the household (roughly .75), five adults (.72) and six adults (.63). It would appear, therefore, that having more adults in the household is an inhibiting factor in arts participation -- other things being equal. Similarly, if one is a child or relative in a housing unit one is less likely to be an arts attender. However, if one is a non-relative in the household, one is more likely to participate in arts

TABLE 4.9b: MCA-Adjusted Arts Participation Indices by Other Background Factors*

Grand Mean: .79

Telephone in housing unit	
Yes, in the unit	.79
Yes, outside unit	.74
No phone connection	.74
Automobiles	
None	.79
One	.82
Two	.78
Three	.80
Four or more	.74
Housing Units in Building	
One, single-family	.77
Two	.79
Three	.67
Four	.74
Five to nine	.70
Ten or more	.91
Mobile home, trailer	.75
Only other units	2.41
Type of Dwelling Unit	
House,apt,flat	.81
Non-transient hotel	1.01
Perm house trans hotel	.41
Rooming house unit	1.06
Mobile home, trailer	.61
Other housing unit	.01
Housing Tenure	
Owner	.79
Renter	.79
Other	.75
Type of Interview	
Personal	.79
Telephone	.79
Armed Forces Member	
Yes	.82
No	.78
Not ascertained	.83

Relative	
Reference person	.74
Spouse of ref person	.89
Own child	.69
Other relative	.68
Nonrelative	1.11
Number Over 18 Years	
One	1.01
Two	.75
Three	.75
Four	.73
Five	.72
Six	.63
Population	
Under 200	.57
200 to 499	.86
500 to 999	.60
1,000 to 1,499	.57
1,500 to 1,999	.78
2,000 to 2,499	.76
2,500 to 4,999	.76
5,000 to 9,999	.85
10,000 to 19,999	.79
20,000 to 24,999	.70
25,000 to 49,999	.96
50,000 to 99,999	.76
100,000 to 249,999	.71
250,000 to 499,999	.86
500,000 to 999,999	.73
1,000,000 or more	.78
Unincorporated area	.79

* The background factors are age, education, ethnic-racial group, income, and urbanicity.

events -- perhaps because it provides an opportunity to spend time in a more spacious environment.

Interview Mode: Respondents interviewed by telephone indicated they attended more arts performances than those interviewed in person, but this difference was insignificant after control for other factors. (People interviewed by phone were also not at home during the times of the in-home interview, indicating they simply were more likely to be away from home for other activities besides the arts; this is again consistent with the "more-more" principle.)

Place Size: In general the larger the place, the greater the attendance rates, going from an index score of .78 for respondents living in communities of one million or more inhabitants to .57 for those (few) respondents who lived in communities of less than 200 inhabitants. However, these differences are not large and are not regular. It is important to note once again, however, that place size refers to the local municipal area and not to the metropolitan hub to which it may be attached. In other words, a small city of 30,000 residents that stands alone in the middle of a rural area is in the same category as a suburb of 30,000 which is part of a large city like New York or San Francisco (which is what is reflected in the 3-category SMSA variable employed in the Chapter 3 analysis).

Armed Forces: After control for other factors, members of the armed forces are slightly more likely to attend arts performances than members of the civilian population.

In general, then, certain of these "minority groups" of individuals (non-relatives, people who live with no other adults, residents of very small communities, people who live in mobile homes or other unusual domiciles) show patterns of arts participation that deviate above or below the average participation rates for other individuals in SPA'82, and these differences deserve further explanation and analysis. They suggest some potentially important theoretical and practical factors that seem to enhance or constrain arts attendance.

J) HOUSEHOLD PARTICIPATION AND INDIVIDUAL PARTICIPATION (SPA'82 Data)

One unique advantage of the fact that SPA'82 data were designed to be collected from all members of the household is that it makes it possible to examine the extent to which participation by one household member may affect participation by another. In particular we can examine the extent to which married people's arts participation is an activity that is done jointly or an activity done individually. In this section, then, we examine cross-cutting information from different respondents in the household: if one spouse in the household says that s/he attends a particular arts performance, does the other spouse say that s/he participates when asked the same participation question.

These cross-tabulated data are arrayed in Table 4.10 for the SPA'82 data by whether the respondents and spouses attended the same type of event. In the case of attending live jazz performances, for example, it can be seen in the first column of Table 4.10 that 56% of respondents whose spouse reported attending a live jazz performance also independently reported that they had attended a live jazz performance (not necessarily the same live jazz performance). In contrast, only 2% of respondents whose spouse reported not attending a jazz performance themselves reported attending such a performance; the rate of participation for those with no spouse, on the other hand, was 13%, or four percentage points higher than the average and 11 points higher than respondents whose spouses did not attend.

In the case of attending classical music performances, differences of a similar magnitude are found: 63% attendance if the spouse had attended and only 5% if not -- a 58 percentage point difference vs. the 54 point difference for jazz performances. For opera attendance, the differential is 55 points (56% vs. 1%) and for attending musical theatre, it is even higher, 64 points (71% vs. 7%). The differential remains similarly high for non-musical stage plays (62 points), for ballet (49 points) and for attending art museums (57 points). It is not as high for the final core arts activity, reading literature (33 points); nonetheless, even for this more "private" arts activity, the rate of reading literature is almost twice as high among those whose spouses also read (72%) than among those whose spouses do not read (39%).

For each activity, then, if one's spouse engages in the activity, the likelihood is greater than 50% that the respondent will also participate. But the question again arises about how much these differentials are a function of mutually shared characteristics of husbands and wives, such as income, education and age.

This question is addressed by the MCA adjusted results shown at the bottom of Table 4.10. It can be seen that these differentials are virtually as high as those found prior to MCA adjustment. The largest changes in differentials are only 10 points and 12 points (for attending art museums and reading literature, respectively). Compared to the pre-post MCA changes in other predictors (see Chapters 5-10), this is a relatively small change. In other words, the factor of spouse's arts participation is a very robust predictor of a person's arts participation. Even after control for other demographic predictors, if one's spouse participates in an art form; the chances are usually over 50% that the respondent will also participate in the same art form.

Table 4.10a breaks these MCA adjusted relations down separately for men and for women, by husbands and by wives. It can be seen that the conclusion about the importance of spouse participation continues to hold for

TABLE 4.10: Differences in Arts Participation by Spouse's Participation (SPA'82 Data)

	Jazz	Classical Music	Opera	Musical Theatre	Stage Play	Ballet	Art Museum	Reading
	9%	13%	3%	19%	12%	4%	22%	56%
UNADJUSTED								
Before MCA Adjustment								
Spouse attended	56%	63%	56%	71%	66%	51%	66%	72%
Spouse did not attend	2	5	1	7	4	2	9	39
No Spouse	13	14	4	19	13	5	23	56
	--	--	--	--	--	--	--	--
Differential	54%	58%	55%	64%	62%	49%	57%	33%
ADJUSTED*								
After MCA Adjustment								
Spouse attended	55%	56%	56%	65%	60%	49%	58%	65%
Spouse did not attend	3	6	1	8	5	2	11	44
No Spouse	12	15	9	20	13	5	24	56
	--	--	--	--	--	--	--	--
Differential	52%	50%	55%	57%	55%	47%	47%	21%

* Adjusted for the respondent's age, education, income and sex.

Table 4.10a: Differences in Arts Participation by Spouse Participation: Men and Women Analyzed Separately, MCA-Adjusted (SPA'82 Data)

	Jazz	Classical Music	Opera	Musical Theatre	Stage Play	Ballet	Art Museum	Reading
	9%	13%	3%	19%	12%	4%	22%	56%
Men								
Spouse attended	56%	49%	50%	59%	55%	39%	54%	59%
Spouse did not attend	4	3	1	6	4	1	9	36
Women								
Spouse attended	55	64	62	71	65	68	62	76
Spouse did not attend	4	8	1	10	6	3	12	56

both men and for women. The numbers for husbands and wives need not be the same for non-spouse attendance because in general more wives (women) attend arts events than do husbands (men), and therefore they could attend alone or with someone besides their husbands. For that reason, the differentials in Table 4.10a, while showing the same phenomena of much higher attendance of husbands (and wives) whose spouses attend, are higher for women than for men.

However, women also report higher attendance with their spouses than do men, which is an apparent inconsistency in reporting. This may mean that more women report participation in the arts than do men, or conversely that men report less. For example, 64% of wives whose husbands attend live classical music performances attend classical concerts compared to only an 8% rate among wives whose husbands do not attend; for husbands, the respective rates are lower in both categories: both among those whose wives attend (49%) and those whose wives do not attend (3%). The same is found for attending opera, musical theatre, stage plays, ballet, and art museums; it also holds for reading.

Nonetheless, whatever the inconsistency or its source, participation is far higher if spouses attend than if not for both husband and for wives; and the difference is not simply a result of higher education, income or age factors among wives or husbands.

Chapter 5

OTHER CULTURAL AND LEISURE ACTIVITIES

Specific types of arts participation are often thought to reflect a particular type of life-style. For example, it is easier to visualize a "cultured" opera attender fixing a gourmet meal rather than fixing an automobile carburetor. If such stereotypes have any basis in fact, then arts participation constitutes but one element in a person's overall style of life. The SPA'82 study included a series of questions on recreational and leisure time activities, other than participation in the art forms discussed in Chapter 3. The objectives of these questions were (1) to compare the rates of participation in these other leisure activities with arts participation and (2) to classify the general life-styles of each respondent in terms of responses to these questions.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for the months in which they were included in the survey. Further analysis of this information will address the following questions:

1) What is the extent of the public's involvement in these various recreational activities? The percentage of the population involved in each recreational activity can be estimated from the distribution of responses in the sample.

2) How do recreational activities differ among groups with different backgrounds? For example, what population groups are most likely to be involved in production work for plays, what groups are likely to be involved in gardening, etc.?

3) What are the most important factors in explaining differences in recreational activities? If respondents from households with higher incomes are more likely to visit

arts and crafts fairs, for example, is this tendency attributable to income differences, or to the impact of other associated factors such as education?

4) Do recreational activities form clusters in terms of an overall "life-style" of activity combinations? Is a person who pursues one type of activity (e.g., camping) more or less likely to pursue a second activity (e.g., movie-going and jogging)?

5) How does involvement in recreational activities differ by background factors? What are the social characteristics of people who tend to be more fully engaged in cultural, intellectual or aesthetic activities, as opposed to those involved in various home-based activities?

6) How do various life-styles incorporate participation in the arts? Are certain recreational activities associated with arts participation, or does involvement in particular sets of recreational activities increase or decrease the likelihood of participation in the arts?

A) RECREATIONAL ACTIVITY QUESTIONS AND RESPONSES

In addition to the 10 core questions on arts participation discussed in Chapter 3, respondents in certain months of the survey were asked whether or not they were active in a variety of general leisure activities. These questions were all framed in terms of any involvement during the previous 12 months. One set of 14 questions (questions 23a-23n that were included in the March survey) included a wide range of general recreational activities:

- Attendance at movies, sports events, zoos or gardens, amusement parks
- Hobbies: games (card, electronic), collecting (e.g., stamps), preparing special meals, gardening
- Physical activities: exercise, sports, or outdoor recreation (e.g., camping)
- Reading (includes more general reading than reading of literature which is one of the core questions in Chapter 3)
- Volunteer work
- Home or vehicle repair

A second set of 12 questions (questions 24-35 asked in the May survey) con-

TABLE 5.1: Numbers of Respondents Reporting Participation in Recreation Life-Style Activities

(N=2294) (N=2374)

RECREATION LIFE STYLE

23a. During the LAST 12 MONTHS, did YOU go out to the movies?

0 ☐ No 950

1 ☐ Yes 1344 NA=0

b. Did you go to any sports events at all? Include both professional and amateur sports events, regardless of whether an admission fee was charged.

0 ☐ No 1178

1 ☐ Yes 1112 NA=4

c. Did you visit a zoo, arboretum, or botanical garden?

0 ☐ No 1589

1 ☐ Yes 700 NA=5

d. Did you play card games, board games, electronic games, pinball, or any other similar games?

0 ☐ No 807

1 ☐ Yes 1485 NA=2

e. During the LAST 12 MONTHS, did you go to an amusement or theme park, a carnival, or a similar place of entertainment?

0 ☐ No 1287

1 ☐ Yes 1006 NA=1

f. Did you jog, lift weights, walk, or participate in any other exercise program?

0 ☐ No 1007

1 ☐ Yes 1284 NA=3

g. Did you participate in any sports activity, such as softball, basketball, golf, bowling, skiing, tennis, or the like?

0 ☐ No 1377

1 ☐ Yes 917 NA=0

h. Did you do any camping, hiking, canoeing, or any other similar outdoor activity?

0 ☐ No 1469

1 ☐ Yes 823 NA=2

i. During the LAST 12 MONTHS, did you read books or magazines?

0 ☐ No 326

1 ☐ Yes 1968 NA=17

j. Did you do volunteer or charity work?

0 ☐ No 1608

1 ☐ Yes 681 NA=5

k. Did you work on a collection such as stamps, coins, shells, or the like?

0 ☐ No 1948

1 ☐ Yes 340 NA=6

l. Did you prepare special gourmet meals for the pleasure of doing it?

0 ☐ No 1610

1 ☐ Yes 681 NA=3

m. Did you make repairs or improvements on your own home or motor vehicles?

0 ☐ No 968

1 ☐ Yes 1322 NA=4

n. Did you work with indoor plants or do any gardening for pleasure?

0 ☐ No 1013

1 ☐ Yes 1275 NA=2

OTHER PARTICIPATION

24. During the LAST 12 MONTHS, did you visit a science museum, natural history museum, or the like?

0 ☐ No 1799

1 ☐ Yes 555 NA=20

25. (During the LAST 12 MONTHS,) Did you visit an historic park or monument, or tour buildings, or neighborhoods for their historic or design value?

0 ☐ No 1490

1 ☐ Yes 861 NA=23

26. (During the LAST 12 MONTHS,) Did you read, or listen to a reading, of poetry?

0 ☐ No 1893

1 ☐ Yes 452 NA=29

27. (During the LAST 12 MONTHS,) Did you visit an art or craft fair or festival?

0 ☐ No 1394

1 ☐ Yes 955 NA=25

28. (During the LAST 12 MONTHS,) Did you take lessons or a class in literature, creative writing, art, photography, craft arts, ballet, music, or the like?

0 ☐ No 2102

1 ☐ Yes 250 NA=22

29. (During the LAST 12 MONTHS,) Did you work with pottery, ceramics, jewelry, or do any leatherwork, metalwork, or similar crafts?

0 ☐ No 2081

1 ☐ Yes 270 NA=23

30. During the LAST 12 MONTHS, did you do any weaving, crocheting, quilting, needlepoint, sewing, or similar crafts?

0 ☐ No 1660

1 ☐ Yes 691 NA=23

31. (During the LAST 12 MONTHS,) Did you do any work in a musical or non-musical play, an opera, or a ballet production? Include working on lights, sets, costumes, promotion, etc., but not performing.

0 ☐ No 2256

1 ☐ Yes 96 NA=22

32. (During the LAST 12 MONTHS,) Did you do any work in a jazz or classical music performance? Include working on lights, sets, promotion, etc., but not performing.

0 ☐ No 2328

1 ☐ Yes 16 NA=30

33. (During the LAST 12 MONTHS,) Did you work on any creative writings such as stories, poems, plays, and the like? Exclude any writing done as part of a course requirement.

0 ☐ No 2205

1 ☐ Yes 146 NA=23

34. (During the LAST 12 MONTHS,) Did you make photographs, movies, or video tapes as an artistic activity?

0 ☐ No 2111

1 ☐ Yes 238 NA=25

35. (During the LAST 12 MONTHS,) Did you do any painting, drawing, sculpture, or printmaking activities?

0 ☐ No 2137

1 ☐ Yes 215 NA=22

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cern more cultural activities: visits to non-art museums and historic sites, as well as various arts and crafts activities:

- Visit to a (non-art) museum, to a historic site, or to an arts or crafts fair
- Read or listen to poetry
- Lessons in the arts
- Craft activities (including jewelry and sewing)
- Artistic activities (including photography)
- Nonperforming work for live arts performances
- Creative writing

The exact wording of these recreational activity questions can be examined in Table 5.1.

Table 5.1 also shows the number of survey respondents who reported participating in each of these recreational activities. For instance, of the 2,294 respondents questioned in the March survey, 1,344 said they had gone to a movie, while 950 said they had not. The remaining 11 respondents did not give codeable responses.

Note that the size of the sample is different (n=2374) for the second set of questions (24-35) which were asked in the May SPA'85 survey. Thus, 555 of these May respondents said they went to a science or history museum, while 1,799 said they had not and 20 gave no answer.

B) POPULATION ESTIMATES OF INVOLVEMENT IN RECREATIONAL ACTIVITIES

After weighting to ensure proportionate representation in the sample by age, sex and race, the responses shown in Table 5.1 can be generalized to produce population estimates. These estimates, expressed in terms of percentages and numbers, are found in Table 5.2. These estimates represent the proportion of the U.S. adult population involved in various recreational activities.

As shown in the first column of Table 5.2, the levels of participation vary greatly for different recreational activities. A majority participate in certain activities such as movies, while only a small percentage participate in other arts-related activities such as creative writing. The highest levels of participation (approximately 60-80%) were found for reading books and magazines, playing games, going to the movies, exercising, gardening, and making home or vehicle repairs. About half of the respondents reported attending a sports event or going to an amusement park. Roughly 30 to 40% claimed to have played sports, prepared a gourmet meal, visited an art or crafts fair, engaged in an outdoor activity (e.g., hiking), visited historic sites, done volunteer work or visited a zoo. Between 20 and 30% of respondents reported visiting a non-art museum, or engaging in needle crafts; about 10 to 20% said that they worked on collections, read poetry, engaged in crafts such as pottery, took art lessons or classes or made photographs or movies. Finally, less than 10% of the respondents reported being involved in creative writing, painting, drawing, sculpture or printmaking or working in a nonperformance capacity for an arts event.

The distribution of responses in the sample--after slight population weighting for age, sex and race--can be generalized to provide population estimates of the number of Americans involved in each activity. These estimates are presented in the second column of Table 5.2. The estimate of 101 million Americans attending movies, for example, was obtained by multiplying the weighted percentage estimate of 59% by the 1985 population estimate of 170.6 million adults.

TABLE 5.2a: Adult Participation in Various Recreational Activities in the Past 12 Months: Weighted Percentage and Population Estimates

	General Recreation Activities (March survey)	Percentage	Population Estimate (in millions)
Q23a)	Attend movies	59%	101
b)	Attend sports events	50	84
c)	Visit zoo	31	52
d)	Play games	66	112
e)	Visit amusement park	45	76
f)	Exercise	57	97
g)	Play sports	41	70
h)	Outdoor activities	37	64
i)	Read books, magazines	86	146
j)	Volunteer work	30	51
k)	Collecting	15	26
l)	Prepare gourmet meals	30	51
m)	Repair home, car	58	98
n)	Gardening	55	94
	Arts-Related Activities (May survey)		
Q24	Visit non-art museum	23	40
25	Visit historic sites	36	61
26	Read poetry	19	32
27	Visit arts/crafts fair	40	68
28	Take art classes	10	17
29	Craft activities: pottery, ceramics jewelry, etc.	11	19
30	Needle crafts	28	48
31	Backstage theatre help: play, musical, opera, ballet	4	7
32	Backstage music concert help	1	1
33	Creative writing	6	11
34	Artistic photography, video	10	17
35	Painting, drawing, sculpture, printmaking	9	15

C) BACKGROUND DIFFERENCES IN RECREATIONAL ACTIVITIES

People with different demographic characteristics tend to engage in different recreational and leisure time activities. Tables 5.3a (for general recreation) and 5.3b (for more cultural activities) present the rates of participation in each recreational activity for different sub-groups. These rates are presented in terms of percent participation for each group in the sample.

Thus, almost 60% of the population went to a movie in the last year. But for those in households earning under $5,000, only 34% had gone to a movie, a rate considerably below the national average for movie attendance. In contrast, in households earning $50,000 or more, some 80% had gone to a movie, which is considerably above the average.

Tables 5.4a and 5.4b present these data for these same groups after adjustment for the impact of the other demographic factors listed in the table. In this case, a comparison of income categories shows an estimated 48% of those in households earning under $5,000, and 65% in the $50,000 and over group attending a movie -- after the impact of other associated variables is statistically adjusted. Thus, at least part of the original difference of 46 percentage points (80% - 34%) between the low and high income groups can be attributed to factors other than income (such as education), since the after adjustment difference between high and low income categories is only 17 percentage points (in Table 5.4a).

This is the basic approach taken in the analysis in Tables 5.3 and 5.4. It begins with a brief description of the relation of various demographic factors on each recreational activity before adjustment; it then is shown after adjustment for other background variables. Unless otherwise indicated, the trends after adjustment remain largely unchanged.

1. General Recreation Activities (Tables 5.3a and 5.4a)

Attending Movies

Age is strongly related to movie attendance, with younger adults being much more likely to attend than older individuals. Those of higher income, occupational and educational levels are also more likely to attend, but half or more the variation for all three variables can be attributable to other factors; occupational differences are particularly affected. Residents of urban and suburban areas are more likely than rural residents to go the movies, although much of this difference disappears when other factors are controlled (in Table 5.4a). Blacks tend to attend movies less than whites.

Attending Sports Events

Younger respondents are also much more likely to attend sports events. People with higher levels of income or education attend at higher than average rates, but these relationships are again weakened considerably when other factors are controlled. Non-whites are notably below average in attending sports events, particularly for those of "other" races. Females are also less likely than average to attend sports events.

Visiting Zoos, Arboretums, or Botanical Gardens

Here, younger people are generally more likely to participate in visiting zoos, arboretums or botanical gardens. Higher status people visit more, but much of the variation in occupation and income seems due to the impact of education and other factors. Blacks visit less than the average, with "other" racial groups being much more likely than the average to visit such places. Suburban and rural residents are less likely than urban residents to visit. People with children are somewhat more likely to visit, even after adjustment for other factors.

Playing Games

Playing games such as cards or pinball is strongly related to age -- with younger people being much more likely to participate. Those with higher levels of education, occupation or income are also more likely to participate, but much of this variation is due to other factors. Suburban residents are more likely to play these games than urban or rural residents, but not much so after control. Blacks and other non-whites play such games less than average.

Visiting Amusement Parks or Carnivals

Visits to an amusement or theme park, a carnival, or similar places are more common among younger age groups. These visits also tend to be more likely among those with higher levels of income, occupation or education. Much of the variation for education, occupation and income is attributable to the influence of other factors. People with children are more likely than those without children to go to such places of amusement, but this is reduced somewhat after adjustment for other factors. Even after adjustment for the impact of other factors, blacks and members of "other" racial groups are less likely to visit such places of entertainment than are white people.

Exercising

People with higher levels of income and education are more likely to

Al: Participation Rates for General Recreational Activities by Background Factors

	Movie	Sports Event	Zoo	Amusement Games	Park	Exercises	Play Sports	Outdoor Activities	Books, Magazines	Volunteer Work	Collecting	Gourmet Meals	Repairs	Gardening
rand Mean:	59%	50%	31%	66%	45%	57%	41%	37%	86%	30%	15%	30%	58%	55%
ncome:														
Under $5,000	34	29	18	47	31	40	26	20	69	17	12	20	26	39
$5,000 - $9,999	40	29	17	41	42	42	22	17	75	20	6	16	36	47
$10,000 - $19,999	44	34	20	63	36	46	33	33	85	26	12	23	51	52
$20,000 - $24,999	60	50	33	65	46	59	36	41	85	27	16	30	61	60
$25,000 - $49,999	71	61	38	77	52	68	52	47	91	36	20	34	69	59
$50,000 and over	80	76	35	83	59	74	66	47	97	45	21	45	70	62
Not ascertained	63	52	39	61	46	52	43	35	87	32	12	38	60	51
SMSA:														
Cent city of SMSA	62	45	34	61	39	59	38	31	86	26	12	32	52	48
SMSA, not cent city	68	54	33	74	49	62	49	40	92	32	17	32	63	60
Not in SMSA	45	47	25	59	44	50	36	40	79	31	16	25	54	55
ge:														
18-24	85	68	31	86	63	68	66	52	86	24	17	29	58	38
25-34	78	61	41	81	58	69	59	50	90	28	19	37	73	57
35-44	66	61	40	74	54	60	47	47	89	36	18	36	66	63
45-54	52	50	28	55	34	51	31	31	82	34	14	28	59	58
55-64	36	31	12	46	31	46	20	23	83	32	13	25	51	59
65-74	27	19	18	36	21	40	12	12	83	27	10	21	32	60
75-96	10	10	6	42	8	38	6	7	81	26	6	20	21	51
Race:														
White	60	52	32	69	47	60	43	41	89	32	17	32	60	58
Black	51	38	16	44	28	38	30	12	66	16	4	17	36	32
Other	62	35	51	58	37	42	39	45	77	27	20	33	52	47
Sex:														
Male	60	58	31	68	46	59	53	45	83	27	17	22	72	43
Female	58	42	31	64	44	56	31	31	88	33	14	37	45	66
Ed ion:														
chool	21	15	8	31	17	24	7	9	57	13	6	13	35	45
gh school	35	30	19	49	35	36	20	30	76	16	10	20	45	52
school graduate	59	49	29	68	48	53	39	40	86	25	15	27	37	56
Some college	74	64	39	76	53	73	59	47	96	37	18	34	67	56
College graduate	80	69	43	82	52	77	57	43	97	44	21	46	63	60
Graduate school	81	69	48	84	54	83	63	52	99	59	20	45	78	61
Marital Status:														
Married	55	50	33	65	45	56	38	39	87	32	16	31	63	61
Widowed	18	15	12	39	17	40	11	6	80	31	9	21	27	59
Divorced	63	41	30	60	43	54	38	37	87	27	15	36	48	53
Separated	63	40	24	64	42	50	38	30	84	12	10	30	43	48
Never Married	81	65	31	81	53	69	63	46	86	26	17	28	56	38
Work Hours:														
None	43	36	24	54	34	50	26	23	81	28	12	28	41	56
1 to 29	62	55	32	75	53	60	44	42	88	33	17	33	54	57
30 to 39	70	56	29	71	56	61	47	44	94	31	16	32	61	58
40 hrs.	72	57	38	73	52	62	61	47	89	27	17	30	70	55
41 to 49	68	59	33	76	51	62	53	51	88	33	16	30	72	49
50 or more	70	68	37	78	52	64	60	51	87	39	19	34	77	52
Occupation:														
Professional	81	72	49	85	58	78	63	53	98	44	19	41	68	64
Managerial	76	66	38	79	56	66	62	44	91	48	21	38	77	54
Sales, Clerical	71	61	37	78	56	68	51	45	94	32	20	37	65	60
Craftsman	63	58	27	70	50	54	52	53	86	20	16	23	84	52
Operatives	51	46	30	61	49	42	40	48	73	19	14	20	74	47
Laborers	59	62	27	66	43	51	56	55	74	8	9	19	67	35
Service Workers	66	42	26	68	42	56	36	38	86	26	13	28	47	51
Not working	43	46	24	60	37	50	34	25	74	21	14	24	46	43
Keeping house	41	27	25	50	33	45	19	21	84	33	11	34	34	66
Student	94	70	28	85	64	77	60	35	94	33	13	25	47	47
Retired	26	25	18	39	15	48	14	16	78	21	10	15	43	52
Presence of Children:														
No children	55	46	26	62	39	56	39	34	85	30	15	29	54	55
One 6-11	70	68	34	77	66	55	48	47	84	36	14	27	70	53
Two+ 6-11	84	63	61	86	67	71	43	61	92	49	13	30	62	67
One under 6	69	56	42	77	58	68	53	44	90	24	15	40	66	53
6-11, One under 6	75	60	51	83	62	52	45	45	94	23	16	35	66	60
der 6, Two+ 6-11	60	45	22	68	58	46	37	61	86	43	16	31	63	68
nder 6	80	63	57	82	74	60	61	53	87	28	23	28	72	66
6-11, Two+ under 6	50	33	7	32	52	58	30	25	78	16	9	33	66	34
Two+ 6-11, Two+ under 6	46	29	32	43	38	16	43	22	58	14	15	28	36	34

exercise, as are younger people and professionals. Non-whites are less likely to exercise than are whites. Men are slightly more likely to exercise than are women, but this difference disappears after other background factors (such as income and education) are taken into account.

Playing Sports

Involvement in sports tends to be more pronounced among young people. In addition, those with higher educational levels and, to a lesser extent, those with higher income levels and professionals-managers are more likely to be active in sports, as are students (less so after controls). Blacks and "other" non-whites are less likely to participate. Females are also less likely than males to participate in sports activities, and this difference is not affected after adjustment for other factors.

Outdoor Activities

Also, young people are much more likely to engage in outdoor activities such as camping, hiking, or boating. The likelihood of participation in outdoor activities rises with income except for the highest income bracket (perhaps reflecting the older average age in this category), but these differences by income are mostly attributable to other factors. Blacks are notably less likely than the average to participate in outdoor activities, and women are also less likely than average to participate. While those with higher levels of education and professionals are more likely to engage in outdoor activities, much of this variation is due to other factors.

TABLE 5.4a: MCA-Adjusted Participation Rates for General Recreational Activities by Background Factors

	Movie	Sports Event	Zoo	Games	Amusement Park	Exercise	Play Sports	Outdoor Activities	Books Magazine	Volunteer Work	Collecting	Gourmet Meals	Repairs	Gardening
Grand Mean:	59%	50%	31%	66%	45%	57%	41%	37%	86%	30%	15%	30%	58%	55%
Income:														
Under $5,000	48	44	32	61	44	52	39	39	80	25	19	25	49	49
$5,000 - $9,999	55	41	26	57	41	52	34	27	81	24	8	19	49	50
$10,000 - $14,999	52	40	26	69	41	50	40	35	88	29	13	25	56	53
$20,000 - $24,999	60	50	33	65	45	60	37	39	86	29	16	31	60	60
$25,000 - $49,999	63	55	32	71	46	63	46	42	87	33	18	33	61	57
$50,000 and over	65	64	26	71	52	63	53	41	88	34	19	38	61	58
Not ascertained	61	49	37	59	46	48	40	33	85	31	10	36	59	51
SMSA:														
Cent city of SMSA	62	47	36	63	42	61	39	35	88	28	13	34	56	53
SMSA, not cent city	62	47	29	68	44	56	44	34	88	28	14	29	58	56
Not in SMSA	53	54	28	65	49	55	40	44	82	35	18	29	58	56
Age:														
18-24	85	67	35	87	67	68	65	57	86	28	18	35	65	47
25-34	72	58	35	78	53	65	56	47	85	25	19	34	71	50
35-44	59	56	35	68	47	57	43	40	85	31	17	33	61	60
45-54	52	49	30	54	34	52	29	28	81	34	13	26	54	56
55-64	42	34	25	48	35	49	23	24	86	34	11	24	49	56
65-74	39	29	24	45	31	56	21	20	94	32	11	25	37	60
75-96	22	21	11	51	19	41	14	18	91	29	6	22	27	50
Race:														
White	60	51	32	69	47	60	43	41	88	31	16	31	60	58
Black	52	41	17	47	30	40	33	13	71	23	4	20	43	39
Other	49	26	47	51	31	32	30	26	73	25	19	27	48	46
Sex:														
Male	59	55	30	67	46	57	52	43	83	27	16	21	68	43
Female	60	45	31	65	44	57	32	33	88	33	14	38	48	67
Education:														
Grade school	43	32	15	49	33	34	26	25	61	13	9	20	50	47
Some High school	42	37	21	55	40	40	29	35	77	16	12	22	50	50
High school graduate	58	49	29	68	49	54	41	39	86	25	15	27	56	55
Some College	66	57	38	70	47	70	52	41	95	38	17	32	62	58
College graduate	71	61	39	74	45	71	46	36	95	43	19	44	58	60
Graduate school	75	59	42	77	48	77	53	44	97	55	19	46	73	60
Marital Status:														
Married	57	50	32	66	46	56	40	39	86	31	15	31	61	59
Widowed	58	53	32	69	48	64	49	35	87	37	19	28	67	59
Divorced	67	43	30	63	47	57	41	40	89	28	15	38	48	53
Separated	67	48	26	71	47	57	45	40	89	17	16	32	53	53
Never Married	62	50	27	65	41	58	44	33	83	27	13	24	47	44
Work Hours:														
None	60	52	29	65	51	60	43	37	88	29	18	36	57	48
1 to 29	52	50	30	70	44	55	39	37	84	32	14	28	53	51
30 to 39	59	49	27	65	47	55	42	41	89	30	14	24	59	50
40 hrs.	61	46	34	65	41	57	40	38	85	27	13	24	59	51
41 to 49	58	49	28	69	40	56	44	41	84	32	11	25	61	46
50 or more	56	49	31	66	37	54	39	37	82	36	13	29	58	53
Occupation:														
Professional	61	56	34	62	55	64	52	48	90	33	16	30	53	62
Managerial	64	55	31	63	58	54	50	36	87	36	18	35	60	54
Sales, Clerical	60	53	30	68	53	60	43	39	90	29	19	34	61	61
Craftsman	59	50	20	63	47	52	41	41	90	24	16	34	67	64
Operatives	65	33	22	59	45	51	33	39	76	24	14	27	58	53
Laborers	69	53	39	61	50	47	43	30	88	31	13	32	74	68
Service Workers	62	43	26	66	41	60	36	37	90	29	16	32	52	58
Not working	52	51	34	70	37	58	38	32	82	30	14	28	55	46
Keeping house	57	44	33	65	36	55	41	36	83	34	12	27	52	48
Student	63	49	23	68	45	57	30	22	89	34	8	17	44	57
Retired	59	48	36	62	31	64	33	32	79	26	13	23	56	48
Presence of Children:														
No Children	58	50	28	66	61	58	43	38	85	30	16	31	58	57
One 6-11	64	61	30	72	61	53	43	38	84	36	11	22	62	47
Two+ 6-11	77	45	58	78	46	65	37	53	89	48	11	23	53	57
One under 6	55	43	35	63	55	59	38	30	88	22	11	32	53	49
One 6-11, One under 6	65	52	45	73	55	49	49	33	95	26	13	33	49	54
One under 6, Two+ 6-11	61	41	19	62	62	69	51	51	90	45	12	28	50	64
Two+ under 6	63	49	49	64	48	49	44	39	83	25	18	20	55	60
One 6-11, Two+ under 6	43	35	4	24	42	59	24	20	81	21	-1	30	61	30
Two+ 6-11, Two+ under 6	54	38	41	57	36	40	49	30	82	35	21	41	39	46

Reading Books or Magazines

It comes as little surprise that reading books and magazines is most strongly related to higher levels of education. These general types of reading are almost universal among professionals-managers and those earning higher incomes; however, these differences decrease when other variables are taken into account. To a slight degree, women are more likely to read than men. Blacks and "other" non-whites are somewhat less likely than average to read books and magazines.

Volunteer Work

Higher levels of education are associated with participation in volunteer or charity work. Volunteer work also rises with income and occupational levels, but this is due largely to related factors such as education. In the unadjusted data, the likelihood of doing volunteer work increases with age until 35-44, and then declines. However, in the adjusted figures, the likelihood is higher among older groups through the 65-74 group. Blacks and "other" racial groups are less likely to do volunteer work. Women are somewhat more likely to participate in volunteer activities than are men and this relation persists after adjustment for other factors.

Collecting

Collectors tend to be better educated and somewhat younger than average, even after control for other factors. Blacks are particularly unlikely to be collectors.

Preparing Gourmet Meals

People with college degrees and those earning $50,000 and more are markedly more likely than average to prepare gourmet meals. Women are also noticeably more likely than average to engage in gourmet cooking.

Repairing Home or Vehicle

In general, those who are younger (less so in the 18-24 age group) and/or better educated are more likely to do home or vehicle repairs. Males and those in higher income brackets are also more likely than average to make such repairs. However, much of the income and educational differences in making such repairs are attributable to the effects of other factors. Blacks and "other" non-whites are less likely to do such repairs than are whites.

Gardening

Women are considerably more likely than men to garden. Those with higher levels of income and education are also more likely to do indoor or outdoor gardening, less so after controls. Gardening activities are less common among those aged 18-24, blacks and "other" non-whites.

2. Arts-Related Recreational Activities (Tables 5.3b and 5.4b)

Visiting Non-Art Museums

Those with higher educational, occupational and income levels are more likely to visit science and natural history museums. Those aged 18-44 are most likely to attend (after multivariate controls), with attendance generally decreasing with age among those over 45 years of age. Whites are more likely to visit these museums than blacks or "other" racial groups.

Visiting Historic Sites

Similarly, those with higher incomes, those in professional occupations, those with higher educational levels, and whites have higher than average attendance rates at historic sites. No marked differences across age groups are found after other factors (like education) are controlled.

Reading Poetry

Listening to or reading poetry is more common among those with higher educational levels, professionals and students. It also tends to be more common among those with higher incomes, but not after control for other factors. Women are more likely than men to listen to or read poetry.

Visiting Arts/Crafts Fairs

Attendance of arts or craft fairs is more common among those with higher incomes and with more education, and among professionals, those aged 25-44, whites, and females. Other factors, however, account for some of the differences in attendance by income or age.

Taking Classes in the Arts

Young adults (particularly students), professionals and the college educated (but without a graduate degree) are generally more likely to have taken lessons or classes in literature, creative writing, art, photography, craft arts, ballet, music, and the like. Here income and racial differences are relatively small. Women and part-time workers are also more likely than average to take these classes.

Craft Activities

The better educated, those under 55, part-time workers and whites are

E 5.3b: Participation Rates for Cultural Activities by Background Factors

	Non-Art Museums	Historic Sites	Poetry	Arts/Crafts Fair	Art Classes	Crafts Activities	Needle Crafts	Backstage Theatre Help	Backstage Music Help	Creative Writing	Photography Videos	Painting, etc.
Grand Mean:	23%	36%	19%	40%	10%	11%	28%	4%	1%	6%	10%	9%
Income:												
Under $5,000	9	12	10	15	11	4	22	1	@	3	6	7
$5,000 - $9,999	12	21	16	22	8	9	27	4	@	4	7	6
$10,000 - $9,999	17	30	20	30	8	10	30	3	@	4	9	9
$20,000 - $24,999	24	34	19	42	9	12	28	5	1	8	12	9
$25,000 - $49,999	29	45	21	50	11	15	28	4	1	8	11	9
$50,000 and over	44	62	27	60	14	12	31	4	1	9	14	14
Not ascertained	19	31	12	36	12	7	27	3	1	5	8	7
SMSA:												
Cent city of SMSA	25	36	18	39	11	10	26	5	1	7	11	9
SMSA, not cent city	26	41	21	42	12	13	31	5	1	8	11	9
Not in SMSA	19	30	17	37	7	10	27	3	@	3	8	9
Age:												
18-24	19	29	22	30	21	12	25	7	1	12	11	14
25-34	29	41	18	49	12	16	32	4	1	7	14	11
35-44	33	45	20	47	12	13	31	4	1	8	10	9
45-54	23	39	19	43	6	11	23	2	0	5	13	8
55-64	17	35	15	37	5	7	26	6	1	3	6	6
65-74	21	29	18	32	3	6	29	1	0	3	4	4
75-96	5	16	18	14	3	4	27	3	0	1	1	4
Race:												
White	26	39	20	43	11	12	29	4	1	7	10	9
Black	11	17	13	15	7	5	16	1	1	5	9	5
Other	10	20	16	31	13	3	33	3	0	5	8	8
Sex:												
Male	24	37	16	33	8	11	4	4	1	5	12	6
Female	24	36	21	46	13	12	50	4	0	8	9	11
cation:												
de school	5	12	7	12	1	1	19	1	0	0	2	2
e High school	11	17	12	21	4	8	26	3	0	1	6	4
High school graduate	17	30	15	36	7	12	29	3	0	4	7	8
Some College	28	45	26	50	17	12	30	5	1	10	16	12
College graduate	48	58	28	61	21	17	34	6	1	13	17	15
Graduate school	45	64	30	60	11	16	23	9	3	13	17	12
Marital Status:												
Married	26	40	18	43	8	12	29	4	0	5	11	8
widowed	12	18	15	26	4	5	42	1	0	0	2	6
Divorced	17	32	13	35	7	13	27	1	1	6	7	6
Separated	28	38	27	36	17	8	25	3	1	10	16	9
Never Married	22	33	22	36	19	11	22	7	1	11	11	13
Work Hours:												
None	20	31	18	35	9	10	34	3	1	5	7	8
1 to 29	32	45	34	54	25	17	33	8	2	11	12	14
30 to 39	22	37	22	43	11	8	35	4	1	8	8	9
40 hrs.	22	35	16	36	8	11	23	4	1	7	10	9
41 to 49	30	43	19	52	7	16	19	1	0	6	14	9
50 or more	30	46	19	47	12	11	18	5	1	8	16	9
Occupation:												
Professional	48	62	31	65	20	14	31	8	3	15	21	16
Managerial	40	53	20	54	12	20	23	4	1	13	16	11
Sales, Clerical	21	37	22	47	10	11	35	4	1	5	9	9
Craftsman	20	34	13	28	5	9	7	2	0	3	7	6
Operatives	10	21	8	24	5	5	12	4	0	4	4	4
Laborers	9	19	7	30	3	15	6	4	2	4	6	12
Service Workers	22	32	21	36	15	12	27	0	0	11	12	8
Not working	13	22	16	26	6	13	24	5	0	5	7	11
Keeping house	20	30	16	38	7	10	51	3	1	3	6	8
Student	26	39	36	45	44	11	34	9	2	19	16	18
Retired	19	30	16	29	3	8	12	2	0	1	6	2
Presence of Children:												
No Children	22	36	19	38	0	10	26	4	1	6	10	8
One 6-11	29	41	17	45	6	14	31	3	1	8	7	11
Two+ 6-11	35	42	20	58	15	25	41	9	1	9	16	10
One under 6	22	35	15	47	11	17	33	1	0	7	10	10
6-11, One under 6	36	50	19	53	17	13	45	0	0	6	14	8
under 6, Two+ 6-11	41	45	22	41	15	23	39	4	3	5	9	9
under 6	28	29	18	37	11	13	31	0	0	5	11	5
One 6-11, Two+ under 6	37	38	29	30	6	18	35	18	4	9	22	18
Two+ 6-11, Two+ under 6	11	11	0	11	11	11	19	0	0	0	0	0

@ Less than 0.5%.

more likely to have engaged in crafts such as pottery, ceramics, jewelry, leather, metal or similar materials. Again, income differences are minimal after control, and the same tends to be true for occupational differences.

Needle Crafts

These are activities predominantly engaged in by women, and participation in weaving, crocheting, quilting, needlepoint, sewing or similar crafts cut fairly evenly across education, income, race, occupation, urbanicity and age categories, particularly after MCA control.

Backstage Theatre Help: Play, Musical, Opera, Ballet

College graduates, students and professionals are more likely to have done nonperforming "backstage" production work for a play, musical, opera or ballet.

Backstage Music Concert Help

Younger adults, professionals and those with post-graduate education are also more likely to have done nonperforming production work for a jazz or classical music performance.

Creative Writing

Young adults, students, professionals and those with at least some college education are more likely to engage in creative writing. To a lesser extent, women and white people are also more likely than the average to pursue creative writing.

Table 5.4b: MCA-Adjusted Participation Rates for Cultural Activities by Background Factors

	Non-Art Museum	Historic Sites	Poetry	Arts/Crafts Fair	Art Classes	Crafts Activities	Needle Crafts	Backstage Theatre Help	Backstage Music Help	Creative Writing	Photo graphy Video	Painting etc.
Grand Mean:	23%	36%	19%	40%	10%	11%	28%	4%	1%	6%	10%	9%
Income:												
Under $5,000	18	25	12	26	11	8	25	3	0	3	10	8
$5,000 - $9,999	19	31	20	32	10	12	29	6	0	6	10	9
$10,000 - $14,999	23	37	23	36	11	12	32	4	1	6	12	11
$15,000 - $24,999	24	33	19	41	9	12	27	5	1	8	12	9
$25,000 - $49,999	26	41	20	46	11	14	28	4	1	7	9	8
$50,000 and over	32	48	21	47	11	8	30	2	0	5	8	11
Not ascertained	17	28	10	35	9	6	26	3	1	4	7	5
SMSA:												
Cent city of SMSA	26	38	17	41	10	11	26	3	1	7	10	8
SMSA, not cent city	23	38	20	39	12	13	29	5	1	8	11	9
Not in SMSA	22	33	18	40	8	10	28	4	0	4	9	9
Age:												
18-24	25	36	22	33	16	15	29	6	1	10	14	[illegible]
25-34	28	41	17	48	12	15	32	4	1	6	14	11
35-44	29	40	19	45	12	11	30	4	1	6	10	9
45-54	21	35	19	41	7	11	24	2	0	5	12	8
55-64	17	33	16	37	6	7	25	6	1	5	5	6
65-74	21	31	20	34	4	7	26	2	0	6	3	4
75-96	8	22	22	19	4	4	20	4	0	5	2	3
Race:												
White	25	38	19	42	11	12	30	4	1	7	10	9
Black	16	24	16	23	7	6	16	2	1	5	10	5
Other	13	22	16	36	10	1	28	3	0	3	9	7
Sex:												
Male	22	34	16	31	7	10	4	3	1	4	11	6
Female	25	38	22	47	13	12	50	5	0	8	9	11
Education:												
Grade school	13	22	9	25	6	5	25	2	1	4	4	5
Some High school	15	22	12	27	6	9	26	3	0	2	8	5
High school graduate	17	31	16	35	8	11	27	3	0	4	8	8
Some College	28	44	25	48	15	11	30	4	1	9	15	11
College graduate	43	51	27	54	18	15	33	6	1	11	14	14
Graduate school	38	54	28	52	8	16	28	9	3	10	13	10
Marital Status:												
Married	25	39	19	41	9	12	30	4	0	6	12	8
Widowed	26	35	19	41	10	11	30	2	1	4	10	10
Divorced	18	33	14	34	7	13	22	1	1	6	7	6
Separated	30	44	29	39	19	10	27	4	1	10	15	20
Never Married	20	30	19	38	12	9	25	6	1	9	7	9
Work Hours:												
None	30	40	17	41	9	10	26	3	1	5	8	7
1 to 29	27	41	32	51	23	18	30	8	1	10	11	14
30 to 39	16	32	21	38	10	9	32	4	0	6	7	9
40 hrs.	17	30	17	34	9	12	28	4	1	6	10	10
41 to 49	19	31	19	45	7	15	29	1	0	6	12	9
50 or more	20	38	19	41	12	10	30	5	1	8	14	9
Occupation:												
Professional	35	49	26	48	18	10	30	7	2	14	19	15
Managerial	30	38	16	41	9	15	26	2	0	8	8	8
Sales, Clerical	23	35	18	40	7	8	27	3	1	3	8	6
Craftsman	28	42	18	36	8	8	26	4	0	5	4	8
Operatives	20	25	13	24	6	2	15	5	0	4	1	4
Laborers	19	33	11	40	3	6	24	1	0	2	5	6
Service Workers	29	39	20	38	12	11	22	3	1	10	11	5
Not working	15	30	21	39	10	19	32	7	0	8	11	15
Keeping house	18	31	18	38	9	13	33	4	1	5	12	10
Student	20	37	33	47	35	13	32	8	1	15	16	14
Retired	22	35	21	46	12	16	31	4	0	5	13	11
Presence of Children:												
No Children	24	38	20	40	11	11	28	4	1	6	11	9
One 6-11	23	34	17	37	6	12	26	3	1	8	5	10
Two+ 6-11	31	36	19	49	13	23	34	9	1	10	13	8
One Under 6	15	27	13	40	6	14	27	0	0	5	5	6
One 6-11, One Under 6	32	45	20	47	16	9	40	0	0	6	10	6
One Under 6, Two+ 6-11	32	37	22	33	14	20	36	4	3	6	7	9
Two+ Under 6	24	25	18	36	8	8	26	0	0	5	6	1
One 6-11, Two+ Under 6	29	31	29	22	4	15	30	18	3	9	18	16
Two+ 6-11, Two+ Under 6	12	14	10	15	14	8	18	1	0	2	0	3

Artistic Photography, Video

Younger and middle-aged groups (18-54), professionals and people with higher levels of education and income are more likely than the average to engage in making photographs, movies or videotapes. The education factor remains the strongest general determinant after control for other factors.

Painting, Drawing, Sculpture, Printmaking

Younger people (aged 18-34), students, women, whites, professionals, part-time workers and those with at least some college education are more likely than the average to engage in painting, drawing, sculpture or printmaking activities.

In sum, respondents with certain background characteristics are noticeably more likely to engage in each of these recreational activities. The background characteristics of groups with higher participation rates are often the same for each activity: higher education (including students), relatively younger age, white, professional and more affluent. Nevertheless, these characteristics are not always the best predictors or explanatory factors, and their influence varies across activities. Income, in particular, often does not work well as an explanatory factor, probably because of its close association with education, much as noted in our detailed MCA example described in Chapter 2.

D) DIMENSIONS AND CLUSTERS OF LEISURE TIME ACTIVITIES

As already noted, one of the purposes of the SPA was to identify how recreational and leisure time activities clustered into particular patterns. The manner in which the more cultural of these activities formed into clusters was of particular interest. A factor analysis, therefore, was performed on all 26 of the items in Table 5.2a based on the November and December SPA'82 data.

The result of this factor analysis was the identification of five separate dimensions of recreational activity. However, four of these dimensions were "weak", in the sense that the factor loadings that identified them were in the .3 to .5 or "low" range for such loadings, or that only two to four activities were identified on each. Moreover, the main result from this analysis was that all the activities were related positively to each other, and that one "general activity" factor seemed a more apt descriptor of the data than the five dimensions that emerged from the analysis.

Nonetheless, the structure of the five separate dimensions is shown in Table 5.5. The first dimension in Table 5.5 included going to the movies, attending sports events, playing games, visiting amusement parks, exercise (or other exercise programs), engaging in sports activities, outdoor activities, reading books, improving or repairing the home or vehicles, and (to a lesser extent) visiting a zoo or historical site, or an arts/crafts fair. This cluster represents a life-style organized primarily around away-from-home activities, many involving considerable physical exertion, such as sports and exercise.

The second dimension in Table 5.5 is one that includes painting/drawing/sculpting/printmaking, lessons in the arts, creative writing, and, to a lesser extent, craft activities, listening to poetry, and making artistic photographs/movies/videotapes. This dimension, then, clusters activity directly involving more creative arts and crafts.

The third dimension comprises needle crafts, gardening, weaving (and similar needle crafts), preparing gourmet meals, and (to a lesser extent) visiting arts and crafts fairs. This cluster reflects involvement in creative domestic activities which are often considered as traditionally feminine pursuits. Similarly, these activities were generally engaged in more often by females in both SPA'82 and SPA'85.

The fourth dimension clusters visiting science and history museums, historic sites, zoos or arboretums, and, to a lesser extent, arts and crafts fairs. In contrast to the first cluster, this group of away-from-home activities is organized around more intellectual and aesthetic appreciation, rather than physically active activities away from the home. It also differs from the emphasis on the creative and productive arts-crafts activities in the second and third clusters.

A fifth dimension somewhat loosely groups "backstage" production work -- both for plays, musicals, operas, and ballets, and for jazz or classical music performances. It suggests that people who have the interests and skills to perform such support activities for one type of performance are more likely to be interested in (or recruited for) similar work for other kinds of performances.

Thus, factor analysis suggests five separate groupings of recreational activities and leisure time activities. The first cluster largely excludes arts and crafts activities, except for a somewhat weak association with attending arts and crafts fairs. The fourth cluster has a stronger associa-

TABLE 5.5: Dimensions of Recreational Activities: Varimax Rotated Factor Matrix (SPA'82 Data)

General Description	Factor 1 (Away-from-home)	Factor 2 (Creative Arts)	Factor 3 (Domestic)	Factor 4 (Visual Appreciation)	Factor 5 (Backstage)
Movie	*.587	.148	.064	.167	.015
Sports events	*.566	.092	.010	.136	.069
Zoo	*.328	.139	.159	*.439	.023
Games	*.607	.104	.144	.095	.011
Amusement Park	*.510	.062	.137	.152	.063
Exercise	*.507	.204	.131	.083	.059
Play Sports	*.624	.161	-.073	.091	.050
Outdoor activities	*.446	.141	.055	.182	-.004
Volunteer work	.171	.137	.240	.226	.168
Books, magazines	*.425	.100	.296	.107	.017
Collecting	.160	.209	.159	.110	.052
Gourmet Meals	.149	.199	*.402	.133	-.003
Repairs	*.445	.086	.174	.104	-.008
Gardening	.123	-.001	*.581	.115	-.013
Non-art Museums	.197	.128	.088	*.562	.058
Historical sites	*.308	.173	.217	*.570	.021
Poetry	.120	*.318	.233	.191	.179
Arts/crafts fair	*.307	.188	*.358	*.357	.052
Art classes	.144	*.440	.077	.049	.154
Craft activities	.133	*.327	.184	.027	.048
Needle Crafts	-.004	.131	*.485	.035	.051
Backstage theatre help	.056	.132	.041	.056	*.667
Backstage music concert help	.008	.061	.013	.012	*.399
Creative Writing	.064	*.421	.036	.101	.228
Photography, video	.159	*.334	.134	.177	.042
Painting, etc.	.103	*.531	.095	.063	-.072

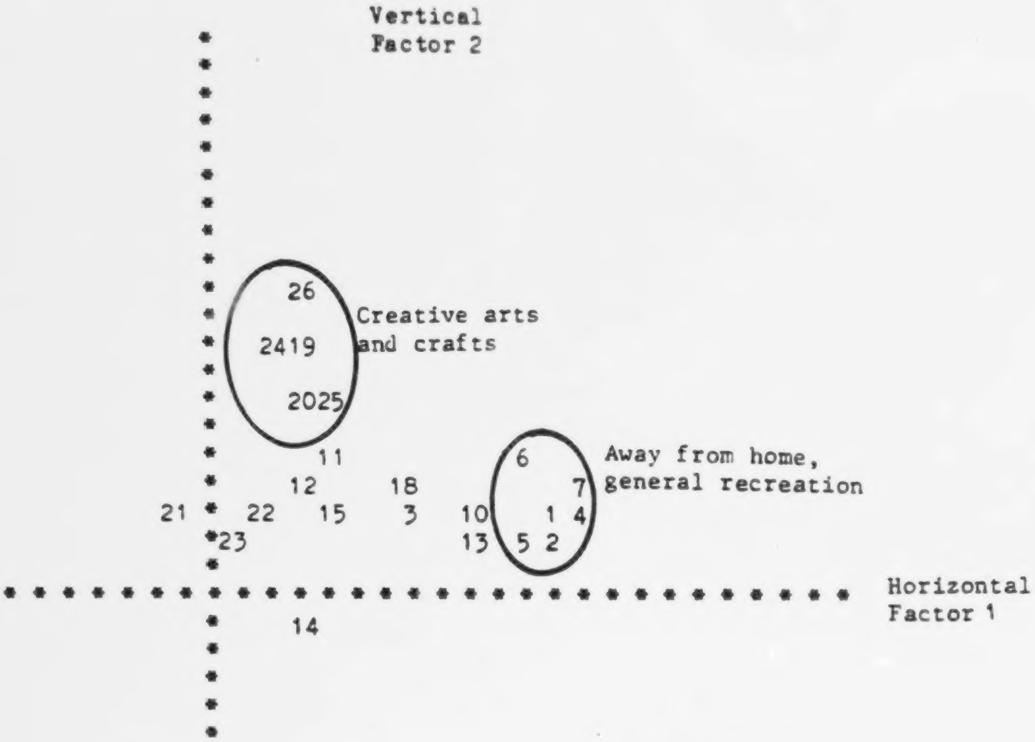
* Indicates variables within each factor

tion with visiting arts and crafts fairs, and it seems to represent art spectators, rather than creators. The fifth cluster involves a closer, active, supportive involvement with the arts community, but as a nonperformer. The third cluster includes some active involvement in the arts (and crafts), as well as a weaker association with less active appreciation at arts and crafts fairs. Finally, the second cluster reflects activities involving creation of arts and crafts products. In short, this analysis suggests that some distinctive patterns or general life-styles do exist -- and that within each life-style, arts and crafts stand in different relationships to each other (active vs. passive, intellectual vs. manual, and domestic vs. away-from-home).

These types of clusters, then, can be cross-tabulated by attendance at "core" arts events to see whether or not they correlate with arts participation in terms of the core questions in Chapter 3. At the same time, we also see value in utilizing a general activity factor -- one involved in any leisure activity whether at home or away from home, regardless of its aesthetic character. That factor could be indexed only for the November and December 1982 SPA data, however, since the 1985 general and cultural recreation activities were asked in different survey months.

A spatial representation of these first two dimensions of this factor analysis is plotted in Figure 5.1. The clustering of more general away-from-home activities (movies, zoos, etc.) is shown at the right hand side of Figure 1. The clusters of more active cultural activities (photography, painting, backstage work, etc.) cluster more at the top of Figure 1. (The other three clusters require more than a two-dimensional representation and cannot be shown in a diagram like Figure 1.) It is beneficial to remember that labels we have given to these clusters and dimensions have been arbitrarily defined, based solely on the clusters and loading pattern that emerge from the factor analyses.

Diagram 5.1: Clustering of Activities in First Two Dimensions from Factor Analysis



1=Movie
2=Sports Event
3=Zoo
4=Games
5=Amusement Park
6=Exercise
7=Play Sports
8=Outdoor Activities*
9=Volunteer Work**
10=Books/Magazines
11=Collecting
12=Gourmet Meals
13=Repairs
14=Gardening
15=Non-art Museum
16=Historic Sites***
17=Poetry****
18=Arts/Crafts Fair
19=Art Classes
20=Pottery, etc.
21=Needle Crafts
22=Backstage Theatre Help
23=Backstage Music Help
24=Creative Writing
25=Photography
26=Painting, etc.

* Outdoor activities (8) coincides with books/magazines (10).
** Volunteer work (9) coincides with non-art museums (15).
*** Historic sites (16) coincides with arts/crafts fairs (18).
**** Poetry (17) coincides with pottery, etc. (20).

E) BACKGROUND DIFFERENCES IN INDICES OF RECREATIONAL AND CULTURAL ACTIVITIES

Our analyses in Section 3 of this chapter described how respondents with certain background characteristics are more likely to engage in particular recreational activities. The Section 4 analyses indicated that these activities tend to cluster into overall dimensions or patterns. That makes it possible to simplify the Section 2 analyses by identifying persons with particular social backgrounds who may be more likely than others to engage in groups or patterns of activities. That is the purpose of this section.

Involvement in patterns of activity is defined operationally through indices which measure the number of activities within a given set or cluster in which a respondent was involved. These indices are based on, but not strictly dictated by, the results of the factor analysis in the preceding section. As in Chapter 3, each respondent was given one point for each relevant activity in which they had participated in the previous 12 months.

Our analysis will treat four such indices: the nine general activities carried on away from home--going out to movies, sports events, zoos (or arboretums or gardens), games, amusement parks, jogging, playing sports, outdoor activities, and volunteer activities (average = 4.2 activities); 2) five general activities usually carried on at home--reading books, collecting, making gourmet meals, making repairs or improvements, and gardening (average = 2.4 activities); 3) four cultural away-from-home activities --visiting science museums, historic sites, and arts and crafts fairs as well as poetry readings (average = 1.2 activities); 5) eight arts and crafts activities --lessons such as literature, pottery work, weaving, production work for play/musical/opera/ballet, production work for jazz/classical

TABLE 5.6: Indices of Recreational Activities by Background Factors

	Away From Home	At Home	Cultural Visits	Arts and Crafts
Grand Mean:	4.2	2.4	1.2	0.8
Income:				
Under $5,000	2.6	1.7	0.5	0.5
$5,000 - $9,999	2.6	1.8	0.7	0.6
$10,000 - $14,999	3.4	2.2	1.0	0.7
$15,000 - $24,999	4.2	2.5	1.2	0.8
$25,000 - $49,999	5.0	2.7	1.5	0.9
$50,000 and over	5.6	3.0	1.9	1.0
Not ascertained	4.2	2.5	1.0	0.7
SMSA:				
Central city of SMSA	3.9	2.3	1.2	0.8
SMSA, not central city	4.6	2.6	1.3	0.9
Not in SMSA	4.2	2.3	1.0	0.7
Age:				
18-24	5.4	2.3	1.0	1.0
25-34	5.3	2.8	1.4	1.0
35-44	4.8	2.7	1.5	0.9
45-54	3.7	2.4	1.2	0.7
55-64	2.9	2.3	1.0	0.6
65-74	2.1	2.1	1.0	0.5
75-96	1.5	1.8	0.5	0.4
Marital Status:				
Married	4.1	2.6	1.3	0.8
Widowed	1.9	2.0	0.7	0.6
Divorced	3.9	2.4	1.0	0.7
Separated	3.6	2.2	1.3	1.0
Never Married	5.2	2.3	1.1	1.0
Race:				
White	4.4	2.6	1.3	0.8
Black	2.7	1.5	0.6	0.5
Other	3.8	2.3	0.8	0.7
Gender:				
Men employed	5.0	2.5	1.2	0.5
Men other	3.0	1.9	0.9	0.4
Women employed	4.6	2.7	1.4	1.2
Housewife	3.0	2.3	1.0	0.9
Women other	3.6	2.3	1.2	1.1
Education:				
Grade school	1.4	1.6	0.4	0.3
Some high school	2.7	2.0	0.6	0.5
High school graduate	4.1	2.4	1.0	0.7
Some college	5.2	2.7	1.5	1.0
College graduate	5.5	2.9	2.0	1.2
Graduate school	5.9	3.0	2.0	1.0
Work Hours:				
None	3.2	2.2	1.0	0.8
1 to 29	4.6	2.5	1.6	1.2
30 to 39	4.7	2.6	1.2	0.8
40 hrs.	4.8	2.6	1.1	0.7
41 to 49	4.9	2.5	1.4	0.7
50 or more	5.2	2.7	1.4	0.8
Presence of Children:				
No children	3.9	2.4	1.1	0.7
One 6-11	5.0	2.5	1.3	0.8
Two+ 6-11	5.8	2.6	1.5	1.3
One under 6	4.9	2.6	1.2	0.9
One 6-11, One under 6	5.0	2.7	1.6	1.0
One under 6, Two+ 6-11	4.6	2.6	1.1	1.1
Two+ under 6	5.6	2.8	1.3	0.8
One 6-11, Two+ under 6	3.0	2.1	0.3	1.3
Two+ 6-11, Two+ under 6	2.9	2.4	0.9	0.4

music productions, photography/film, painting/drawing/sculpting or printmaking and creative writing (average = 0.8 activities).

Table 5.6 examines the associations between ten background factors and the average index scores on each of these four sets of "life-style" activities for each group (i.e., the average number of activities within that set). Table 5.7 shows the same association for each variable, adjusted by MCA for the impact of the other background variables. These data indicate whether the factor is still a strong predictor (i.e., a useful explanatory factor) after controlling for other variables. The more important relationships will be described below for each of the indices.

1. Index of Recreational Activities Away from Home

Younger, better educated and wealthier individuals are also more likely to participate in a broad range of recreational activities away from home. After adjustment for the influence of other factors, the influence of age remains strong, but the influences of income and, to a lesser extent, education are attenuated. Those who have never been married and those with young children are also more likely to engage in these activities, but statistical adjustment shows that both of these higher rates are attributable to other factors, such as age or education.

2) Index of Recreational Activities at Home

Better educated and wealthier individuals are more likely to engage in the five selected recreational activities at home. Older persons, blacks, widows and separated persons generally participate in fewer of the domestic recreational activities, but part of these lower rates seems attributable to other factors, such as income and education.

TABLE 5.7: MCA-Adjusted Indices of Recreational Activities by Background Factors

	Away From Home	At Home	Cultural Visits	Arts and Crafts
Grand Mean:	4.2	2.4	1.2	0.8
Income:				
Under $5,000	3.8	2.2	0.8	0.7
$5,000 - $9,999	3.5	2.1	1.0	0.8
$10,000 - $14,999	3.8	2.3	1.2	0.8
$15,000 - $24,999	4.1	2.5	1.2	0.8
$25,000 - $49,999	4.5	2.6	1.3	0.8
$50,000 and over	4.8	2.6	1.5	0.8
Not ascertained	4.0	2.4	0.9	0.6
SMSA:				
Central city of SMSA	4.1	2.4	1.2	0.8
SMSA, not central city	4.1	2.5	1.2	0.9
Not in SMSA	4.2	2.4	1.1	0.7
Age:				
18-24	5.5	2.5	1.2	1.1
25-34	4.9	2.7	1.3	1.0
35-44	4.4	2.6	1.3	0.8
45-54	3.6	2.3	1.2	0.7
55-64	5.2	2.3	1.0	0.6
65-74	2.9	2.3	1.1	0.5
75-96	2.3	1.9	0.7	0.4
Marital Status:				
Married	4.2	2.5	1.2	0.8
Widowed	4.4	2.6	1.2	0.8
Divorced	4.2	2.4	1.0	0.6
Separated	4.2	2.4	1.5	1.1
Never Married	4.1	2.1	1.1	0.8
Race:				
White	4.3	2.5	1.2	0.8
Black	2.9	1.8	0.8	0.5
Other	3.1	2.1	0.9	0.6
Gender:				
Men employed	4.4	2.4	0.9	0.3
Men other	4.3	2.1	1.3	0.8
Women employed	4.0	2.7	1.3	1.0
Housewife	4.0	2.3	1.3	1.2
Women other	4.0	2.4	1.5	1.3
Education:				
Grade school	2.6	1.9	0.6	0.5
Some high school	3.1	2.1	0.7	0.5
High school graduate	4.1	2.4	0.9	0.6
Some college	4.8	2.7	1.5	1.0
College graduate	5.0	2.7	1.8	1.2
Graduate school	5.5	2.9	1.9	1.2
Work Hours:				
None	4.2	2.6	1.1	0.6
1 to 29	4.1	2.3	1.6	1.2
30 to 39	4.2	2.4	1.2	0.8
40 hrs.	4.2	2.3	1.1	0.8
41 to 49	4.2	2.3	1.3	0.8
50 or more	4.1	2.4	1.3	0.9
Presence of Children:				
No children	4.1	2.5	1.2	0.8
One 6-11	4.6	2.2	1.1	0.7
Two+ 6-11	5.3	2.3	1.3	1.1
One under 6	4.0	2.3	1.0	0.6
One 6-11, One under 6	4.3	2.4	1.4	0.9
One under 6, Two+ 6-11	4.3	2.5	1.3	1.0
Two+ under 6	4.4	2.4	1.0	0.5
One 6-11, Two+ under 6	2.7	2.0	1.1	1.1
Two+ 6-11. Two+ under 6	4.0	2.3	0.5	1.1

3) Index of Visits to Cultural Facilities

The better educated and the wealthier are more likely to visit cultural facilities (science museums, historic sites, etc.) but after statistical adjustment, education shows the strongest relationship to such activity. Older persons, non-whites, non-employed men, those keeping house and widows are less likely than average to engage in this type of activity. After adjustment, the differences by education remain clear and consistent.

4) Index of Arts and Crafts Activities

Better educated and younger persons, women other than those keeping house, and never married persons tend to involve themselves in a greater range of arts and crafts activities. The relatively high rate for the never married seems largely due to the influence of other variables like age.

In sum, these indices recapitulate how respondents of certain social backgrounds tend to be more involved in varying types and dimensions of recreational activities. Several relationships hold across the sets of activities, although in varying degrees of strength. They suggest how these four factors seem more interrelated than distinct from one another, as one would like to find if the activities were used to construct hypothetical life-styles based on these ten questions. Thus, we find younger, wealthier, better educated individuals, workers, residents of SMSA's outside of central cities, and employed women tend to engage in more activities within each set (at-home activities, away-from-home activities, cultural activities, arts and crafts). Interestingly, the common assumption that children inhibit recreational activities is not supported by these data; individuals without children at home do not participate in a greater number of activities within each set than do individuals with children. Generally, education is the strongest predictor of widespread involvement in any of these sets of recreational activities, much as it was for the core arts activities.

Education is also the most powerful explanatory variable after MCA control. The pattern of association between education and each set of activities is generally maintained after controlling all the other background variables. However, many of the other background variables are fairly weak explanatory factors. For example, after adjustment for other factors, income and SMSA account for little variation in any of the sets of activities.

F) RECREATIONAL ACTIVITIES, LIFE-STYLES AND PARTICIPATION IN THE ARTS

1. Single Recreational Activities:

A major question in this study involved the relationship between recreational activities (or patterns of life-styles) and participation in the arts. Table 5.8 shows the correlations between each recreational activity and participation in each of the seven core arts activities and reading literature. Table 5.9 shows the same basic type of correlational data except using a different measure -- the odds ratio. The odds ratio is based on the differential probabilities of a person participating in Activity 2 given that they do or do not participate in Activity 1. The odds ratio, then, has a more directly interpretable quality to it than the correlation coefficient.

Almost all the correlations are positive in Table 5.8, and the odds ratios are well above 1.0 in Table 5.9, suggesting that arts participation in the eight arts activities is greater among those who are more active in other recreational and leisure time activities.

That indicates that the view that involvement in other recreational activities inhibits arts participation is in need of re-examination. Instead we are faced with the situation of "the more, the more". Somewhat paradoxically, the more one engages in potentially "competing" leisure activities, the more one attends arts events as well.

However, most of the correlation coefficients are relatively low, (under .20) indicating that recreational activity is not a strong predictor of arts participation. Some of the stronger predictors of arts attendance are discussed below. (Correlations of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.) At the same time, the odds ratios indicate that while the

Table 5.8: Correlations Between Life-Style Activities and Core Arts Questions

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
General Recreation								
Movies	.195	.174	.083	.194	.174	.123	.241	.276
Sports events	.161	.132	.036	.175	.114	.016	.193	.237
Zoos, gardens	.151	.209	.101	.185	.128	.117	.267	.192
Games	.156	.125	.042	.158	.122	.081	.163	.282
Amusement parks	.120	.068	.000	.092	.042	.074	.120	.170
Exercise	.187	.177	.063	.197	.142	.097	.220	.315
Play sports	.214	.123	.030	.132	.139	.061	.176	.184
Outdoor activities	.132	.105	.032	.087	.075	.030	.171	.144
Books, magazines	.107	.145	.057	.146	.130	.085	.182	.422
Volunteer work	.126	.267	.117	.232	.269	.152	.237	.247
Collecting	.095	.081	.051	.107	.107	.017	.104	.134
Gourmet meals	.152	.159	.064	.175	.170	.123	.203	.248
Repairs	.113	.088	.029	.094	.057	.060	.169	.155
Gardening	.081	.143	.052	.115	.096	.072	.155	.172
Arts-Related Recreation								
Non-art museums	.205	.266	.123	.255	.260	.208	.441	.261
Historic sites	.209	.271	.128	.289	.283	.176	.411	.331
Poetry	.158	.189	.081	.181	.179	.101	.250	.291
Arts/crafts fair	.228	.281	.130	.277	.258	.199	.336	.345
Art classes	.163	.207	.098	.178	.176	.137	.229	.189
Craft Activities	.113	.096	.024	.088	.101	.063	.155	.135
Needle crafts	.063	.111	.049	.141	.108	.113	.145	.247
Backstage theatre help	.100	.165	.083	.164	.152	.165	.119	.104
Backstage music concert help	.114	.131	.072	.103	.135	.151	.090	.053
Creative writing	.155	.166	.062	.127	.206	.149	.255	.167
Photography, video	.134	.165	.073	.134	.166	.116	.228	.119
Painting, etc.	.146	.127	.083	.124	.152	.102	.215	.154

correlation between going to movies and going to jazz performances is only .195, those who attend movies may be six times more likely to attend jazz performances than those who do not go to movies.

Jazz

In general, the recreational activities examined in this study do not seem very useful as predictors of attendance at jazz performances. The highest correlates for attendance of jazz performances are attending arts or crafts fairs, playing sports and visiting museums/historic sites. The highest odds ratios are found for going to movies, reading books and magazines and doing backstage work at musical performances -- and to a lesser extent exercising and playing sports. Both the correlations and the odds ratios thus agree that playing sports is a major factor related to attending jazz performances.

Classical Music

More recreational activities have a moderate relationship with attending classical music performances in Table 5.8. Those who visit non-art museums, take art classes, visit historic sites and/or arts or crafts fairs, do volunteer work and/or go to zoos, gardens, etc. are somewhat more likely to attend classical music performances than those who do not engage in these activities. The odds ratios point to many of the same correlates -- particularly visiting science museums, historical places, arts or crafts fairs and art classes.

Opera

None of the life-style activities was even a moderately strong correlate of opera attendance in Table 5.8 (although the low correlations may be a function of the low frequency of opera attendance as well). The highest

TABLE 5.9: Odds-Ratios of Paticipation in Various Recreational Activities and Core Arts Participation

General Recreation	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Movie	6.0*	3.5	3.9	2.8	3.8	5.2	4.0	3.2
Sports event	3.2	2.3	1.6	2.8	2.1	2.2	2.6	2.7
Zoo	2.4	3.5	3.5	2.8	2.2	3.1	3.7	2.4
Games	4.3	2.5	1.9	3.0	2.5	2.8	2.5	3.4
Amusement park	2.3	1.5	1.0	1.7	1.3	2.1	1.8	2.0
Exercise	4.8	3.5	2.5	3.5	2.7	3.1	3.3	3.7
Play sports	4.5	2.1	1.4	2.1	2.4	1.8	2.4	2.2
Outdoor activities	2.4	1.9	1.5	1.6	1.6	1.3	2.3	1.9
Book/Magazine	6.5	27.1	9.5	9.4	12.0	4.8	10.2	32.2
Volunteer work	2.3	2.6	4.2	3.6	5.3	4.3	3.2	3.2
Collecting	2.1	1.8	2.1	2.1	2.2	1.2	1.9	2.3
Gourmet meals	2.8	2.6	2.2	2.7	2.9	3.3	2.7	3.3
Repairs	2.3	4.8	1.5	1.7	1.5	1.9	2.4	1.9
Gardening	1.8	2.6	2.1	2.0	1.9	2.2	2.2	2.0
Non-art Museum	3.9	4.5	3.7	3.7	4.5	6.1	8.9	4.2
Historic sites	4.1	4.9	4.3	4.4	5.4	5.5	7.8	4.6
Poetry	3.0	3.1	2.5	2.7	3.0	2.7	3.7	6.7
Arts/Crafts fair	5.1	5.5	4.7	4.2	1.8	8.5	5.3	4.7
Art classes	3.6	4.1	3.4	3.2	3.5	3.9	4.2	4.8
Craft activities	2.5	2.1	1.5	1.9	2.1	2.1	2.7	2.6
Needle crafts	1.6	1.9	1.7	2.1	1.9	2.8	2.0	3.3
Backstage theatre help	3.2	4.9	3.8	4.7	4.5	6.6	3.2	3.7
Backstage music concert help	9.8	14.0	7.0	4.3	14.7	16.3	7.6	3.1
Creative writing	4.1	4.0	2.7	2.9	5.2	5.0	7.2	7.3
Photography, video	3.0	3.3	2.6	2.5	3.3	3.3	4.3	2.4
Painting, etc.	3.4	2.7	3.0	2.5	3.2	3.1	4.2	3.6

* Entries can be read as follows: The probability of attending a live Jazz performance among respondents who reported going out to a movie was about 6.0 times higher than among respondents who did not report going out to a movie.

odds ratios for opera tend to be similar to those found for classical music: visiting science museums or historic sites, attending arts or crafts fairs and classes; doing backstage work at musical performances and reading books and magazines have even higher odds ratios.

Musicals

Several of the recreational activities were moderately strong correlates of attending live musicals. Persons who visit either science museums, arts or crafts fairs or historic sites -- or who exercise or do volunteer work -- are more likely to attend than non-participants in these activities. Much the same patterns of association are suggested by the odds ratios in Table 5.9.

Plays

Many of the same recreational activities related to attendance at musicals are moderate correlates of attendance at stage plays. Again, visiting science museums, historic sites, and arts and crafts fairs are moderate correlates of attendance at stage plays, as is doing volunteer work. In addition, creative writing is related to attending plays, and at a higher level than was true for attending musicals. Backstage theatre work, movie attendance, reading books and magazines, and visiting historic sites have relatively high odds ratios in relation to attending plays.

Ballet

Only two of the life-style activities (visiting science museums and attending arts or crafts fairs) are moderate correlates of attendance at ballet performances, although this again may be a function of the low proportion who go to the ballet. The odds ratios suggest much the same pattern of correlates for ballet as for the previous activities, but with additional associations with volunteer work, gourmet meal preparation and art classes.

Art Museums

A number of recreational activities are at least moderate correlates of attendance at art museums or galleries. While visiting science museums or historic sites is most strongly related to visiting art museums, visits to historic places, arts or crafts fairs and zoos/gardens are also substantially related to such attendance. Other recreational activities that are moderately correlated include: attending movies, exercising, doing volunteer work, preparing gourmet meals, reading or listening to poetry, taking classes in the arts, creative writing, making photographs/movies/videotapes, and painting/drawing/sculpting/ printmaking. Much the same list of variables is highlighted by the odds ratio measures, particularly visiting science museums and historic places.

Reading

Again, many recreational activities correlate with increased reading of novels, plays, etc. As might be expected, general reading is the strongest correlate (n=.42). Visiting arts and crafts fairs, exercise, reading and visiting historic sites are also substantial correlates. The moderate predictors are numerous: going to the movies, reading or listening to poetry, going to sports events, playing games, visiting science museums, doing volunteer work, preparing gourmet meals, and needle crafts. The odds ratios again show the strongest relationship with general reading, followed by creative writing, reading or listening to poetry, taking art classes, visiting arts and crafts fairs and visiting science museums.

To summarize, the degree to which recreational activities relate to arts attendance varies considerably. Virtually all of the recreational activities correlate positively with all of the core arts participation and reading items, meaning again that the more one does each of these recreational activities, the more one participates in the arts. But some recreational activities correlate more highly than others in both Table 5.8 and Table 5.9. The strongest correlates of attendance at arts activities are visiting science museums, visiting historic sites, general reading, listening to poetry, visiting arts or crafts fairs, going to zoos/gardens and going out to the movies. While even these activities generally are only moderately correlated with attendance at arts events or with reading literature, participation is still generally associated with from two to six times as high a likelihood of arts participation as non-participation, in general being about three times as high.

The recreational activities that tend to relate least well to arts participation are going to amusement parks, outdoor activities like camping, working on stamp or other collections, doing home and auto repairs, gardening and plant care and similar crafts. Still these recreational activities are related to up to twice as high levels of arts participation, averaging about 50% more participation.

Examined from the other perspective, asking which arts activities are related to recreational activity, the two activities that stand out in Table 5.8 are opera and ballet. However, while they may have the weakest correlation with other recreational activities, the pattern of odds ratios is not much different than for other activities.

2. Recreational Dimensions:

A second level of analysis examines whether involvement in dimensions or clusters of recreational activities is associated with participation in the arts. In other words, we relate arts participation to certain combinations of activities suggested by the factor analysis.

The MCA data relevant to this analysis are presented in Tables 5.10 and 5.11. As in the previous section, the degree of activity on each dimension is measured by the simple index of recreational activities the respondent engaged in within that cluster of activities. The four indices used are those in our earlier analysis: activities away from home, activities at home, cultural activities and arts and crafts activities.

Table 5.10 shows the association between the number of activities on each of these four indices and the rate of participation in each arts activity. Data are presented in terms of the total proportions engaging in each of the seven art forms individually and for the overall index of arts participation based on these seven art forms. Table 5.11 shows the same associations adjusted for nine demographic variables by MCA. These associations indicate to what extent variations in arts participation can be attributed to background factors, rather than to a particular set of activities. Most of our discussion will center on these adjusted figures, which show only about one-half to two-thirds the range of the unadjusted figures on these four life-style indices.

Jazz

Attendance at jazz music performances relates positively to greater involvement in all four recreational indices. On each index (activities away from home, activities at home, cultural activities and creative arts-crafts), the larger the number of activities, the greater in general is the attendance at "core" arts events. Thus, in contrast to those who engage in none of the away-from-home activities (4% attendance after MCA adjustment), those involved in nine such activities reported 33% attendance. Other dimensions show the same pattern of association, with the arts and crafts index showing a stronger association -- a difference of 25 percentage points between the lowest and highest number of activities, compared to a 20 point gap for the cultural activities index and 11 points for the at-home index. Nonetheless, it can be seen that there are several "reversals" at various steps on certain indices; for example, those reporting three away-from-home activities report 9% attendance at jazz performances compared to only 5% among those who report four away-from-home activities.

Classical Music

Attendance at classical music performances is also related to more involvement on three of the four indices. For the away-from-home recreational activities, the range of attendance between lowest and highest involvement is 25 percentage points; for at-home activities, virtually no difference is found. But for cultural activities and arts/crafts, the associations are stronger, with a spread of 23 points and 21-34 points (excluding those with all seven arts-crafts activities), respectively between those with lowest versus highest participation scores on the index. Again, there are several "reversals" -- particularly for the arts-crafts activities index.

Opera

The relationships between recreational indices and opera attendance

TABLE 5.10: Participation Rates for Various Arts Activities by Number of Recreational Activities Away From Home or At Home

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index
Grand Mean* (N=2,294)	10%	12%	2%	14%	11%	4%	21%	0.8 **
Away from Home:								
0	@	@	1	1	1	@	1	@
1	2	6	@	4	2	2	6	0.2
2	1	4	@	7	5	2	8	0.3
3	8	11	3	10	10	2	18	0.6
4	5	11	1	13	13	3	20	0.7
5	11	12	4	17	14	4	27	0.9
6	12	13	4	19	11	6	29	1.0
7	18	27	4	23	21	9	36	1.4
8	26	22	3	29	21	8	35	1.5
9	37	32	5	37	25	9	55	2.0
At Home:								
0	1	@	1	2	1	@	1	@
1	3	4	1	6	5	1	7	0.3
2	9	10	2	12	8	3	19	0.6
3	12	16	4	18	14	6	25	0.9
4	16	21	2	23	19	7	38	1.3
5	21	19	7	17	23	7	40	1.4
Grand Mean* (N=2,374)	9%	14%	3%	19%	13%	5%	22%	0.8
Cultural Activities:								
0	3	3	1	6	3	@	4	0.2
1	7	9	2	17	11	2	15	0.6
2	14	26	5	30	22	8	39	1.4
3	19	30	8	38	26	14	48	1.8
4	32	42	9	45	41	14	74	2.6
Arts/Crafts:								
0	5	7	2	11	7	1	11	0.5
1	10	15	2	22	14	5	25	0.9
2	14	26	3	30	24	10	41	1.5
3	24	34	10	43	29	15	54	2.1
4	25	28	2	33	36	18	54	2.0
5	47	62	18	54	58	20	74	3.3
6	39	42	15	39	49	27	56	2.6
7	47	47	47	100	47	47	100	4.4

* Different grand means are due to different samples for responses to different rotated questions in different months.

** Participation index based on jazz, classical music, opera, musicals, plays, ballet and art museums (does not include reading activity).

@ Less than 0.5%.

are generally much weaker and much less systematic than for jazz or classical music performances. Both at-home and away-from-home activities indices show relatively small deviations from the mean and several reversals past three or four activities. Opera attendance has the strongest association with creative arts/crafts activities, particularly at the highest level (7) of activity, where a 35% attendance rate is reported. Attending cultural events (poetry readings, science museums, etc.) is not strongly or systematically related to opera attendance.

Musicals

More regular and clearer associations are found between all four indices and attendance at musicals. The association is strongest for creative arts/crafts which shows a range from 16% (no such activities) to 64% for those engaging in seven arts/crafts activities. The other dimensions show consistently similar patterns but the associations are not as strong. As will be found with plays (below), attendance is more strongly related to away-from-home recreational activities (28 point difference) and to cultural spectator events (22 point difference) than to general at-home activities (5 point difference).

Plays

Attending non-musical stage plays is also associated with each of the four recreational dimensions in varying degrees of strength. The following figures show the range of deviation from the mean between those with no involvement and those with highest involvement on each dimension:

Away-from-home	14 percentage points
At-home	6 percentage points
Cultural activities	20 percentage points
Arts/crafts	25 percentage points

TABLE 5.11: MCA-Adjusted Participation Rates for Various Arts Activities by Number of Recreational Activities Away From Home or At Home

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index
Grand Mean* (N=2,294)	10%	12%	2%	14%	11%	4%	21%	0.8 **
Away from Home:								
0	4	3	1	5	5	2	10	0.3
1	5	7	1	6	4	2	11	0.4
2	3	4	1	9	6	2	12	0.4
3	9	12	4	11	12	3	20	0.7
4	5	11	1	12	13	3	20	0.9
5	10	12	4	17	14	4	26	0.9
6	11	13	5	19	10	5	27	0.9
7	14	24	3	20	10	8	30	1.1
8	24	21	2	27	17	8	29	1.3
9	33	28	3	33	19	7	44	1.7
At Home:								
0	5	12	3	14	12	4	17	0.7
1	6	9	2	12	9	3	14	0.5
2	10	11	2	14	9	3	20	0.7
3	12	14	3	15	12	5	22	0.8
4	12	16	1	17	15	5	30	0.9
5	16	11	5	19	18	4	29	1.0
Grand Mean* (N=2,374)	9%	14%	3%	19%	13%	5%	22%	0.8
Cultural Activities:								
0	5	7	2	11	8	2	10	0.4
1	7	11	2	18	12	3	17	0.7
2	12	23	4	26	18	6	34	1.2
3	16	24	6	31	20	11	39	1.5
4	25	30	4	33	28	9	59	1.9
Arts-Crafts:								
0	7	11	3	16	11	3	18	0.7
1	10	14	2	19	12	5	23	0.8
2	9	18	4	22	18	7	28	1.1
3	17	25	7	31	21	11	36	1.5
4	17	17	@	20	28	12	35	1.3
5	32	45	14	35	41	13	38	2.2
6	29	32	14	39	36	22	35	2.1
7	32	11	35	64	7	32	44	2.3

Control factors are income, SMSA, age, ethnicity, gender/work education, marital status, number of children and number of work hours.

* Different grand means are due to different samples for responses to different rotated questions in different months.

** Participation index based on jazz, classical music, opera, musicals, plays, ballet and art museums, but does not reflect reading activity.

@ Less than 0.5%.

Once again, then, involvement on the creative arts/crafts activity index shows the strongest association with arts attendance in the case of plays (excluding those few people with seven such activities).

Ballet

The creative arts/crafts dimension is also the major explanatory predictor of attending the ballet, with 32% of those reporting all seven arts/crafts activities going to the ballet compared to less than 3% of those reporting no arts/crafts activities. For ballet, neither participation in at-home nor away-from-home activities relates very consistently to attendance, although those with four or more away-from-home activities do report higher attendance than those with fewer away-from-home activities. The same is true for those who report two or more cultural spectator activities.

Art Museums

Here the relations with the creative arts/crafts index are no higher (or lower) than for the other three dimensions (activities at-home, away-from-home, and cultural activities). The strongest association is with cultural spectator activities, with a range of nearly 50 percentage points between those reporting most and fewest such activities. It will be remembered that these cultural activities include visits to non-art museums, suggesting considerable overlap in visits to both art and non-art museums. The index of at-home activities shows the weakest relation with visiting art museums.

As summarized in the index in the final columns of Table 5.11 (and

Table 5.10), fuller involvement in each of the four recreational life-style indices (as measured by participation in a greater number of activities on each dimension) is generally associated with more participation in each of the arts. Moreover, this pattern is maintained after controlling for a series of nine background variables (Table 5.11). People who report themselves as more active in any type of recreational and leisure time activities are also more likely to report attending arts events. The arts/crafts dimension (which generally involves a relatively small percentage of the population) is a particularly strong predictor of participation in the arts.

These relations are summarized conveniently in the final columns of Tables 5.10 and 5.11, which show differences in the overall index of arts participation (with the average score of .8 as described in Chapter 3) by each of the four recreational life-style indices. It can be seen in Table 5.11 that arts participation rises more regularly and consistently than for individual art forms on all four life-style indices; nonetheless, some reversals are still found. Consistent with the pattern of results noted above, the differences in participation are sharpest for the arts/crafts dimension (2.3 - 0.7 = 1.6 attendances), then for the cultural visits dimension (1.5 attendances) or the away-from-home dimension (1.4) and least for the at-home dimension (0.3). In general, the range of adjusted differences in Table 5.11 is only one-half to two-thirds as large as the range of unadjusted differences found in Table 5.10. That rough rule-of-thumb is what tends to hold for the other unadjusted figures for single arts activities that we have examined in this chapter.

SUMMARY

Several findings about recreational and cultural activities have emerged from this chapter. The extent of adult involvement in a series of 26 separate activities ranged considerably, from less than 1% who report doing backstage work for jazz and classical music performances to a high of 84% who report reading books or magazines.

Involvement in these activities varies among sub-groups of the population: typically the better educated, those from wealthier households and younger adults are most likely to engage in each recreational activity generally, with education being the single strongest predictor. Even after adjustment for other demographic variables, education emerges as the strongest explanatory factor for involvement in almost all recreational and leisure time activities -- much as was true for the core arts participation questions in Chapter 3.

In addition to considering these activities individually, we determined how responses formed into dimensions or clusters of activities which tend to be associated with each other. These were used to construct indices of leisure "life-styles". Five clusters of activities were identified, the main four of which were:

1) activities carried on at home
2) those occurring away from home
3) cultural spectator activities (e.g., going to history/science museums, poetry readings)
4) creative arts and crafts activities (e.g., painting, pottery)

An analysis of population sub-groups revealed that better-educated, more affluent and younger adults were again more likely to participate in each of these clusters of life-style activities defined by sets of recreational activities.

The final sections of this chapter examined the relationship between arts participation and these recreational life-style questions. Certain recreational activities emerged as more notable (but moderate) correlates of arts participation -- visiting science and historical museums, visiting historic sites and visiting arts/crafts fairs; general reading and readings of poetry; and attending movies. However, almost all recreational activities were related to more arts participation, and few distinct clusterings of recreational activities and arts activities could be found.

When recreational activities were clustered into four general life-style indices, all four again emerged as useful predictors of arts participation; the greater the involvement on all four dimensions (as measured by number of activities participated in), the greater the likelihood of participation in the arts. The index of creative arts/crafts activities particularly strong in its predictive ability. Generally, these associations were maintained after controls on background factors were introduced.

Chapter 6

ARTS PARTICIPATION VIA THE MASS MEDIA

The mass media bring arts performances to the general public on a scale far beyond that of live performances or arts events. Television, radio and recordings transform arts events performed in a public setting into programs that can be enjoyed in private, non-arts settings. Arts performances in New York, Milan or Moscow can be enjoyed in one's own home or car, or even at the beach. The series of questions in Table 6.1 was thus designed to assess the nature and extent of the public's arts participation through the mass media.

This chapter examines respondents' answers to these mass media questions, which were asked only in the month of June, 1985. The following questions are also examined in further analyses of these questions:

1) What is the extent of public participation in each of the arts via each of three mass media? What are the relative sizes of the arts audiences reached through the mass media? How do the sizes of the audiences compare to those for attendance of the same types of arts events?

2) Do people with certain background characteristics have higher rates of participation in the arts via the mass media?

3) Can patterns be discerned between the use of specific mass media and participation in particular arts? Does participation tend to be organized around a specific medium for a variety of arts or around a variety of media for a particular art form? For example, are respondents more likely to follow several art forms through recordings or to follow jazz through several media?

4) Do people of different backgrounds rely on a broader range of mass media to participate in particular art forms? Blacks may be more likely to listen to jazz via the radio, but are blacks or whites likely to follow jazz through more types of media? Are these differences better accounted for by other factors?

5) Do people of different backgrounds participate in varying numbers of art forms through television, radio, or recordings? Are these differences better accounted for by other factors?

6) How does media exposure influence attendance of public performances? Media exposure could either substitute for, or supplement, attendance at live arts performances.

7) Are people who participate in the arts through more media channels also more likely to attend arts performances?

A) MASS MEDIA QUESTIONS AND RESPONSES

The survey included questions to determine the usage of mass media during the previous 12 months for seven types of arts presentation--jazz, classical music, opera, musicals, non-musical stage plays, ballet, and art displays. The mass media included television, radio, and audio recordings (tapes or records). Media participation in non-musical plays was restricted to radio and television; media participation in ballet and the visual arts was restricted to television.

In addition to these questions about the specific use of the media for arts participation, an additional question was asked about the extent of the respondents' daily television viewing. This question provides a better perspective about whether this dominant way of spending free time facilitates or inhibits attendance at arts performances. It also makes it possible to see whether greater viewing of television is related to the use of the medium for arts events.

Table 6.1 shows the exact wording of the questions, as well as the responses for them. For example, of the 2,125 respondents, 359 watched a jazz performance on television and 1,758 did not; no data were available for 8 respondents. Question 14 responses, which are in a different format, include 103 respondents who reported watching television less than half an hour per day or not at all, 438 respondents who reported watching one hour per day, 566 respondents who reported watching two hours per day (the modal responses), etc.

TABLE 6.1: Number of Respondents Using Media for Arts Content (N=2125)

MEDIA PARTICIPATION

14. Approximately how many hours of television do you watch on an average day?

0= 103	6= 104	12= 8
1= 438	7= 25	13= 2
2= 566	8= 45	18= 1
3= 386	9= 5	
4= 275	10= 13	
5= 145	11= 2	

_______ Number of hours

0 ☐ None/Don't watch television

n= 2125

15a. During the LAST 12 MONTHS, did you watch a jazz performance on television?

0 ☐ No 1758
1 ☐ Yes 359 8

b. (During the LAST 12 MONTHS,) Did you listen to a jazz program on radio?

0 ☐ No 1750
1 ☐ Yes 361 14

c. (During the LAST 12 MONTHS,) Did you listen to jazz records or tapes?

0 ☐ No 1722
1 ☐ Yes 385 18

16a. During the LAST 12 MONTHS, did you watch a classical music performance on television?

0 ☐ No 1592
1 ☐ Yes 531 2

b. (During the LAST 12 MONTHS,) Did you listen to a classical music program on radio?

0 ☐ No 1654
1 ☐ Yes 462 9

c. (During the LAST 12 MONTHS,) Did you listen to classical music records or tapes?

0 ☐ No 1654
1 ☐ Yes 455 16

17a. During the LAST 12 MONTHS, did you watch an opera on television?

0 ☐ No 1846
1 ☐ Yes 277 2

b. (During the LAST 12 MONTHS,) Did you listen to an opera music program on radio?

0 ☐ No } *Go to 17c* 1967
1 ☐ Yes } 148 10

17c. (During the LAST 12 MONTHS,) Did you listen to opera music records or tapes?

0 ☐ No 1959
1 ☐ Yes 163 3

18a. During the LAST 12 MONTHS, did you watch a musical stage play or an operetta on television? Exclude movie versions of musical plays and operettas.

0 ☐ No 1735
1 ☐ Yes 385 5

b. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on radio?

0 ☐ No 2004
1 ☐ Yes 109 12

c. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on records or tapes?

0 ☐ No 1940
1 ☐ Yes 169 16

19a. During the LAST 12 MONTHS, did you watch a non-musical stage play on television? Do not include movies, situation comedies, or TV series.

0 ☐ No 1648
1 ☐ Yes 472 5

b. (During the LAST 12 MONTHS,) Did you listen to a radio performance of a non-musical stage play?

0 ☐ No 2028
1 ☐ Yes 76 21

20. (During the LAST 12 MONTHS,) Did you watch a ballet program on television?

0 ☐ No 1773
1 ☐ Yes 347 5

21. During the LAST 12 MONTHS, did you watch a television program dealing with art galleries or things in art museums?

0 ☐ No 1574
1 ☐ Yes 546 5

B) POPULATION ESTIMATES FOR MEDIA PARTICIPATION IN THE ARTS

After the sample is weighted to reflect population proportions by age, sex, and race, the distribution of responses can be generalized to the U.S. adult population. Table 6.2a first presents these estimated percentages of the population participating in the arts through the media, while Table 6.2b translates these percentages into numbers of adults in the U.S. population. For purposes of comparison, the population estimates of those attending live performances (from Chapter 3) are also presented in the final row of the table.

Reading across Table 6.2a provides a comparison of that proportion of the adult public which uses one medium to participate in various art forms. Classical music, plays and art exhibits reach the largest audiences on television; jazz and classical music reach the largest audiences via radio as well as through recordings. (The comparisons are not entirely parallel since not all arts activities can be distributed through each of these media; e.g., ballet on radio).

On the other hand, reading down the columns of Table 6.2a indicates the proportion of the public reached by each medium for each art form. Each of the three media reaches a jazz audience of about one-fifth of the adult public or an audience almost double the proportion of recent attenders at live jazz performances. A fifth to a quarter of U.S. adults participate in classical music through each of the media (not necessarily the same individuals through each medium), which is also about twice the audience size of recent attenders of a live performance. The opera audience via either radio or recordings is less than two-thirds that of opera's television audience, but is over two times as large as the audience of re-

TABLE 6.2a: Estimated Percentages of U.S. Adults Participating in the Arts via TV, Radio and Recordings

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	17%	24%	12%	18%	21%	15%	25%
Via Radio	18	21	7	5	4	NA	NA
Via Records/ Tapes	19	21	7	8	NA	NA	NA
(Attended)	(10)	(13)	(3)	(17)	(12)	(4)	(22)

TABLE 6.2b: Estimates of U.S. Adults Participating in the Arts via TV, Radio and Recordings (in thousands)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	29,556	40,770	20,915	29,777	36,523	26,074	43,271
Via Radio	30,425	36,051	11,176	8,262	6,378	NA	NA
Via Records/ Tapes	32,408	35,622	12,525	12,954	NA	NA	NA

cent live performances. Two to three times as many people follow musicals on television as on radio or recordings, but the TV audience size is only somewhat greater than that at live performances of musicals. However, a much larger audience follows ballet on television than at live performances. Finally, the number of people who visit art exhibits is approximately equal to the television audience for presentations and discussions of visual art. In short, television usually reaches a larger audience for each art form than do the other media (except for jazz) or the number of attenders at live arts performances.

The weighted percentage of respondents who estimated the number of hours spent watching television is presented in Table 6.2c. Based on the respondents' reports of their viewing habits, half of American adults watch two or fewer hours of television per day, while a sizeable proportion--almost a third--watches four or more hours per day. In contrast, only about 5% said they watch less than a half hour per day or not at all. Television viewing has truly become an ingrained part of the everyday leisure activities of the American public, consuming almost three hours each day according to these estimates.

TABLE 6.2c: Percentage of U.S. Adults Watching TV Various Numbers of Hours on an Average Day

		Cumulative
0 hours	5%	5%
1	21	26
2	27	53
3	18	72
4	13	85
5	6	91
6	5	96
7	1	97
8+ hours	3	100

Average hours = 2.8 hrs.
(with 9 to 24 hours coded as 10 hours per day)

C) BACKGROUND DIFFERENCES IN MEDIA USAGE

Media usage varies among sub-groups based on background factors such as income, age, ethnicity-race, gender and education. Tables 6.3a and 6.3b present these variables as predictors of media usage, while Tables 6.4a and 6.4b show the same associations for each variable after adjustment for the impact of the other four variables. Comparing the two tables reveals the most important predictors and explanatory factors of participation in seven arts activities via the mass media.

The most important predictor of participating in the arts through the media, as in Chapters 3-5, is educational level. The other predictors fluctuate in importance, with gender usually being the weakest predictor. The more important relationships for arts participation through the mass media are discussed below.

Amount of Television Viewing

The number of hours of viewing television generally decreases with higher income and education levels, but most of the variation within income in Table 6.3a can be accounted for after education and other factors are controlled in Table 6.4a. Both younger and older individuals are likely to spend more time viewing television than average, but much of the difference in the higher rate for older individuals is attributable to other factors. Men watch slightly fewer hours than women, but this difference essentially disappears if other variables are held equal. Blacks are more likely than whites and "other" races to watch television, although some of the greater than average rate among blacks is due to education and other factors.

TABLE 6.3a: Arts Participation Via Media and Average Number of Daily TV Hours by Background Factors

	TV Hours	Jazz on TV	Jazz on Radio	Jazz on Recording	Classical Music on TV	Classical Music on Radio	Classical Music on Recording
Grand Mean:	2.8	17%	18%	19%	24%	21%	21%
Income:							
Under $5,000	3.8	16	20	20	17	17	18
$5,000 - $9,999	3.2	15	15	15	17	14	12
$10,000 - $14,999	2.9	16	14	12	22	17	14
$15,000 - $24,999	3.0	17	16	18	22	17	18
$25,000 - $49,999	2.6	18	18	20	26	24	25
$50,000 and over	1.8	26	31	30	43	42	41
Not ascertained	2.9	15	14	18	18	18	16
Age:							
18-24	3.1	19	22	25	14	14	15
25-34	2.7	22	24	26	22	24	20
35-44	2.5	17	20	19	25	26	25
45-54	2.6	19	15	18	29	23	27
55-64	2.8	14	11	13	28	21	25
65-74	3.4	12	9	10	26	17	15
75-96	3.6	9	7	3	31	16	15
Race:							
White	2.8	15	16	17	24	21	21
Black	3.4	37	32	36	21	18	15
Other	2.9	28	37	21	40	37	43
Sex:							
Male	2.6	19	19	19	22	20	19
Female	3.0	16	17	19	26	22	22
Education:							
Grade school	3.2	7	8	6	10	6	7
Some high school	3.4	11	10	8	10	7	5
High school graduate	3.1	14	12	15	18	14	14
Some college	2.5	23	24	26	27	24	25
College graduate	2.1	27	32	33	41	44	43
Graduate school	1.9	31	36	34	59	58	55

Jazz

Watching jazz programs on television, unlike viewing per se, is more frequent among the better educated and more affluent. These differences are only slightly reduced after adjustment for other background factors. Those aged 25-34 are most likely to watch jazz on television, but when other background factors are controlled, differences between older and younger people in regard to watching jazz on television largely disappears.

Those with higher incomes are also slightly more likely to listen to jazz on the radio. The rate of listening to jazz on the radio increases more strongly with rising education levels, but drops with rising age levels. Women are slightly less likely to listen to jazz on the radio than are men, but not after MCA control. The rate of listening to jazz on the radio for "other" races and those with graduate education are notably the highest in Table 6.4a.

Listening to jazz on recordings increases similarly with higher income and education levels, and gradually decreases with age. Women and men do not differ significantly in their rates of listening to jazz recordings. As is the case with radio, blacks are more likely to listen to jazz recordings than are whites or "other" racial groups.

Classical Music

Watching classical music on television is more likely among those in higher income brackets, but most of the differences are attributable to education and other factors. Younger groups are less likely to watch classical music on television; those aged 45 and older are most likely to watch. Men watch less than do women. Blacks are slightly more likely to watch classical music on television than whites, but those of "other" races watch at a much higher rate. The rate of watching rises strongly with edu-

TABLE 6.3b: Arts Participation Via Media by Background Factors

	Opera on TV	Opera on Radio	Opera on Recording	Musical on TV	Musical on Radio	Musical on Recording	Play on TV	Play on Radio	Ballet on TV	Art Museums on TV
Grand Mean:	12%	7%	7%	18%	5%	8%	21%	4%	15%	25%
Income:										
Under $5,000	10	5	7	13	3	8	17	5	15	20
$5,000 - $9,999	11	3	4	13	5	4	14	3	18	18
$10,000 - $14,999	11	5	4	18	4	4	16	4	17	24
$15,000 - $24,999	10	4	7	16	3	5	22	2	12	24
$25,000 - $49,999	12	8	8	19	5	9	23	5	14	27
$50,000 and over	24	17	16	29	13	20	39	5	23	39
Not ascertained	10	3	5	14	2	6	18	1	10	23
Age:										
18-24	7	2	4	12	1	6	17	1	10	22
25-34	8	5	6	17	4	7	24	5	14	26
35-44	13	10	8	17	7	7	20	5	15	25
45-54	15	10	12	22	8	12	23	4	16	27
55-64	19	7	11	19	6	9	25	4	14	30
65-74	15	6	6	20	4	5	21	2	21	23
75-96	18	8	5	15	4	2	18	3	25	23
Race:										
White	12	7	8	17	5	8	22	4	15	25
Black	9	4	4	17	3	5	19	4	15	23
Other	23	10	13	36	15	17	23	0	39	39
Sex:										
Male	11	6	7	16	5	6	21	4	11	24
Female	13	7	8	19	5	9	22	3	19	26
Education:										
Grade school	5	1	2	7	1	1	6	1	9	9
Some high school	6	1	1	8	1	1	8	0	8	15
High school graduate	10	4	5	14	3	5	15	3	11	22
Some college	13	6	8	20	4	8	28	3	15	31
College graduate	17	11	15	29	11	17	37	6	22	38
Graduate school	34	30	23	42	18	26	55	15	46	50

cational level -- again in contrast to the reverse pattern found for watching TV in general.

Increased levels of both income and education are associated with greater likelihood of listening to classical music on the radio, but again, education is the stronger explanatory variable after control. People aged 18-24 and those over age 65 are less likely to listen to this music on the radio, but the lower rate for the elderly is due largely to other factors.

As with radio and television exposure, listening to classical music recordings has a strong positive relationship to education and, to a lesser extent, to income. Again, in contrast to education, the strength of income as a predictor is largely a function of the other predictors. Listening to classical recordings is most popular among those aged 35-64, but after other factors are controlled, only the 45-54 age group is much above average. Women are slightly more likely than men to listen to classical recordings. Whites are more likely to listen to classical recordings than blacks, but both groups listen far less than those of "other" races.

Opera

Watching opera on television is more common among people with higher incomes, but only for the highest ($50,000+) income group. It also tends to be higher among older people, peaking with those aged 55-64. Moreover, the effect of age is diminished by other predictors; all groups over age 55 are more likely to watch opera on television than those younger groups, after adjustments are made for other background variables. Those of "other" races are much more likely to watch opera on television, and white-black differences are negligible. Women are slightly more likely to watch than are men. Again, education is the strongest of these predictors for

TABLE 6.4a: MCA-Adjusted Arts Participation Via Media and Average Number of Daily TV Hours by Background Factors

	TV Hours	Jazz on TV	Jazz on Radio	Jazz on Recording	Classical Music on TV	Classical Music on Radio	Classical Music on Recording
Grand Mean:	2.8	17%	18%	19%	24%	21%	21%
Income:							
Under $5,000	2.8	16	20	22	21	24	25
$5,000 - $9,999	3.5	18	19	20	21	20	19
$10,000 - $14,999	2.9	18	17	15	25	22	19
$15,000 - $24,999	2.8	17	16	18	23	18	19
$25,000 - $49,999	3.0	17	17	18	25	21	21
$50,000 and over	2.2	22	26	24	33	11	30
Not ascertained	2.8	15	14	17	18	18	17
Age:							
18-24	3.0	18	22	24	15	16	17
25-34	2.7	21	24	24	20	22	18
35-44	2.6	15	18	17	20	21	20
45-54	2.6	18	14	17	28	22	26
[illegible]-64	2.8	15	13	15	30	22	16
[illegible]5-74	3.2	16	13	15	34	24	22
75-96	3.5	14	9	7	38	20	20
Race:							
White	2.8	14	15	16	23	21	20
Black	3.2	39	34	37	27	22	20
Other	2.9	27	36	19	41	36	43
Sex:							
Male	2.7	18	18	18	20	19	18
Female	3.0	17	18	18	27	23	24
Education:							
Grade school	2.8	8	11	9	5	5	6
Some high school	2.9	11	11	9	10	8	5
High school graduate	3.0	13	12	14	19	15	15
Some college	2.6	23	23	25	28	24	25
College graduate	2.4	27	30	32	42	43	43
Graduate school	2.2	32	37	36	57	57	53

watching opera on television, and this relationship increases somewhat after adjustment for other factors.

Listening to opera on the radio is noticeably more common among those with incomes greater than $50,000, but much of this difference is due to education and other factors. It is also more frequent among persons over age 35 and among "other" racial groups, but most particularly among adults with higher education levels.

People with higher incomes and educational levels are more likely to listen to opera recordings as well, but again these differences by income are largely attributable to other factors. The rate of listening to these recordings increases until the ages of 45-64 and then declines, but these declines among the 65+ groups largely disappear after control for other factors. Those of other races are again more likely to listen to opera recordings than are whites or blacks.

Musicals

Watching musicals on television is more common among higher income people, than among those in other income groups; however, about half of the variation is due to other factors. It is also highest among those with higher education levels. The youngest (age 18-24) and oldest (age 75+) groups are least likely to watch, with middle-aged people most likely to watch. After other factors are controlled, this age differential is reduced, with those aged 65-74 being most likely to watch musicals on television. Women are slightly more likely to watch than are men, moreso after other factors are held equal. "Other" race groups watch at a much higher rate than whites and blacks, both before and after other background factors are taken into consideration; after this control, however, blacks are

ABLE 6.4b: MCA-Adjusted Arts Participation Via Media by Background Factors

	Opera on TV	Opera on Radio	Opera on Recording	Musical on TV	Musical on Radio	Musical on Recording	Play on TV	Play on Radio	Ballet on TV	Art Museums on TV
Grand Mean:	12%	7%	7%	18%	5%	8%	21%	4%	15%	25%
Income:										
Under $5,000	13	8	10	16	5	10	23	7	15	25
$5,000 - $9,999	12	5	7	16	7	7	20	5	20	23
$10,000 - $14,999	13	6	6	21	5	7	20	5	19	28
$15,000 - $24,999	10	5	7	17	3	5	23	2	13	24
$25,000 - $49,999	12	7	6	17	4	7	20	4	14	25
$50,000 and over	19	13	11	22	9	15	30	2	17	32
Not ascertained	10	3	5	13	2	6	18	1	10	22
Age:										
18-24	7	3	4	13	2	7	18	2	12	22
25-34	7	4	5	15	4	7	22	4	14	24
35-44	10	8	6	14	6	6	16	4	12	22
45-54	14	9	12	21	7	11	22	4	15	26
55-64	19	6	11	20	6	9	26	5	15	31
65-74	19	9	9	25	5	8	28	3	25	29
75-96	21	10	7	19	5	3	24	3	27	30
Race:										
White	12	6	7	17	5	7	21	4	14	25
Black	12	6	5	21	4	7	24	5	18	27
Other	23	10	13	36	15	17	22	0	38	39
Sex:										
Male	11	6	6	15	4	5	20	4	10	23
Female	14	7	8	20	5	10	23	3	20	27
Education:										
Grade school	1	0	0	4	0	2	4	0	2	7
Some high school	5	1	1	7	1	1	8	0	7	15
High school graduate	11	5	5	14	3	5	16	3	12	22
Some college	14	6	8	20	5	8	28	4	17	31
College graduate	18	10	15	30	11	16	37	7	24	38
Graduate school	33	29	23	42	16	25	55	15	48	49

slightly more likely to watch than whites.

In terms of listening to musicals on the radio, people earning over $50,000 and those of "other" races, are clearly above average in listening to musicals on the radio. Again, however, higher levels of education are associated most clearly and systematically with increased rates of listening. Middle-aged people also listen more.

Those in higher income brackets or educational levels are also more likely to listen to musicals on recordings. The likelihood of listening to recordings also reaches a peak among those aged 45-54, and then declines for older age groups. "Other" race groups also listen at an above average rate. Women are more likely than men to listen to recordings of musicals, moreso after MCA control.

Plays

Watching plays on television is more common among those with higher income and education levels, although income plays a smaller role after MCA controls. People under 24 years and those over 75 years are less likely to watch, but the elderly watch at a higher rate after control. Race differences are negligible. Women are slightly more likely than men to watch television plays after MCA control.

The rates for listening to plays on radio exhibit little systematic variation across the background variables, except for education. After control, those earning $50,000 or more, older aged groups and those of "other" races are less likely than the average to listen to plays on the radio. The strong association is with education, reaching its peak among those with post-graduate education, who are over three times more likely to listen to plays on the radio than the national average.

Ballet

People with higher income levels are more likely to watch ballet on television, but not so after MCA control. Watching ballet on TV also rises slightly with age, particularly among those aged 65 and older. "Other" races are much more likely than the average to watch, but blacks are no less likely to watch than whites. Women are considerably more likely than men to watch ballet on television, and this relation is maintained after adjustment for other factors. Education is again the predominant factor, with post-graduates being three times more likely to watch than the national average.

Art

Watching programs related to the visual arts on television is again more common among those with higher income and educational levels, with income differences largely disappearing after MCA control. The viewing of these programs has at first a curvilinear relation with age, peaking among those aged 55-64. After MCA control, however, the oldest age groups watch as much as the 55-64 age groups. Black-white differences are marginal, with those of "other" races being more likely to view.

D) DIMENSIONS OF ART PARTICIPATION VIA THE MASS MEDIA

The analysis above indicates that certain education, racial, etc. groups in the population are more likely to follow a particular art form through all three media (television, radio and recordings). Either of two assumptions can be drawn from this finding. First, it is reasonable to assume that it is the same people within these groups who are following their favorite arts through each available medium. However, it is equally plausible that people may have a preferred (or more readily available) medium through which they can participate in their favorite art forms. A factor analysis of participation in the arts via the three mass media can indicate the major ways in which media participation in the various art forms tend to cluster.

The results of the factor analysis for the 1982 SPA data shown in Table 6.5 suggest there are three such dimensions. The composition of these dimensions of most strongly correlated media variables will be discussed below. In addition, the first and second dimensions are graphically displayed in Figure 6.1. The first dimension (or factor) lies along the horizontal axis; it is mainly defined by those variables grouped farthest to the right on this axis, i.e., those with a strong correlation with the hypothetical factor. Similarly, the second dimension can be identified along the upper part of the vertical axis.

In Table 6.5, the first dimension consists of those who tend to pursue a range of arts through television. This cluster shows a relatively strong association between watching art exhibits, plays, ballet, opera, musicals and classical music on television. (These are indicated with an asterisk.) Television viewing of jazz performances is weakly associated with this di-

TABLE 6.5: Factor Analysis of Media Use Variables: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
Factor Description	TV Users	Jazz	Radio Music
TV Hours	.24	-.13	-.41
Jazz on TV	*.35	*.66	-.06
Jazz on Radio	.08	*.80	.20
Jazz on Recording	.07	*.81	.15
Classical Music on TV	*.69	.20	.28
Classical Music on Radio	.37	.33	*.53
Classical Music on Recording	.35	.32	.55
Opera on TV	*.69	-.01	.27
Opera on Radio	.34	-.01	*.61
Opera on Recording	.33	.01	*.60
Musical on TV	*.68	.10	.20
Musical on Radio	.17	.01	*.67
Musical on Recording	.21	.14	.59
Play on TV	*.58	.17	.30
Play on Radio	.12	.05	.47
Ballet on TV	*.72	.09	.16
Art Museums on TV	*.64	.22	.60

* Indicates variables loading highest on each factor

mension. It should be noted that the number of hours spent watching television is not highly loaded on this factor, although the other items do focus on television viewing of arts performances.

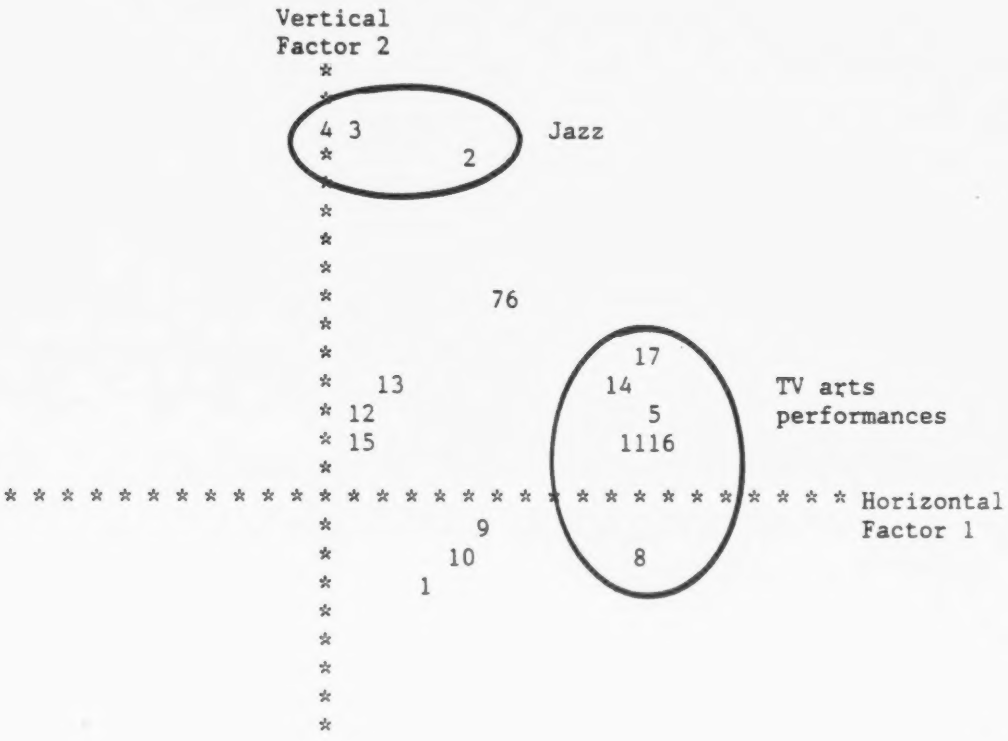
The second dimension clusters reveal the participation of jazz enthusiasts, i.e., those who follow jazz performances on all three media -- television, radio, and recordings.

A third cluster identifies a group that primarily follows certain arts through radio broadcasts and through recordings. This grouping includes listening to operas, musicals, and classical music on the radio, as well as to LP and tape recordings of operas, musicals and classical music. It does not include listening to jazz or plays on radio.

Factor analysis suggests that individuals who follow the arts through the media do indeed fall into certain patterns. Moreover, these patterns seem to be centered more on the particular types of media than on the particular art form through each available medium. Two of the three media have a cluster associated with it. Those who participate in one art form through television are more likely to participate in the whole range of arts on television rather than through the other media. Similarly, though for a narrower range of art forms (opera, classical music, and musicals), those who listen to one of these arts on either the radio or recordings are more likely to listen to the other two music forms on the same, rather than different, media. Thus, those who participate in opera, classical music and musicals through the media tend to concentrate on one medium.

The major exception to the relative dominance of medium over art form occurs for jazz, where the art form is clearly more important than the particular medium. Jazz enthusiasts tend to use all three media to pursue this art form. Other exceptions (but with weaker associations) relate to

Figure 6.1: Plot of Rotated Factors of Arts Participation via the Media



1=TV Hours
2=Jazz on TV
3=Jazz on Radio
4=Jazz on Recording
5=Classical Music on TV
6=Classical Music on Radio
7=Classical Music on Recording
8=Opera on TV
9=Opera on Radio
10=Opera on Recording
11=Musical on TV
12=Musical on Radio
13=Musical on Recording
14=Play on TV
15=Play on Radio
16=Ballet on TV
17=Art Museums on TV

the overlap between recordings and radio: those who use radio for several arts tend also to listen to opera recordings, and people who use recordings also listen to classical music on the radio.

E) BACKGROUND DIFFERENCES: ARTS BY MEDIUM AND MEDIA BY ART FORM

This factor analysis demonstrates that arts participation via the media not only tends to be patterned, but is usually more strongly organized around the medium than around a particular art form. The next step is to examine the social characteristics of respondents who are involved by each medium across multiple forms. In subsequent analysis, variations organized across art forms are also examined.

1. Arts through Each Medium

Organization of arts by media will be treated first. Table 6.6 shows the relationship of ten background factors to the average number of art forms followed via a particular medium. For example, the television index measures whether a respondent has watched television performances of either jazz, classical music, operas, musicals, plays, ballets, or visual arts presentations in the preceding 12 months. One point is given for each arts-medium exposure. Respondents in households earning over $50,000 reported 4.8 arts-medium exposures, which is 2.2 more than this average of 2.6. It should be noted that the indices are based on varying numbers of art forms since not all forms are carried by all media. Table 6.7 presents the same associations between participation via the media and each background factor, adjusted for the effects of all other background variables by MCA.

TABLE 6.6: Indices of "Core" Arts Participation Across Media by Selected Background Factors

	All Media	TV	Radio	Recordings
Average Index Score:*	2.6	1.3	0.5	0.5
Income:				
Under $5,000	2.2	1.1	0.5	0.5
$5,000 - $9,999	1.9	1.0	0.4	o.3
$10,000 - $14,999	2.1	1.2	0.4	0.3
$15,000 - $24,999	2.2	1.2	0.4	0.5
$25,000 - $49,999	2.8	1.4	0.6	0.6
$50,000 and over	4.8	2.2	1.1	1.1
Not ascertained	2.0	1.1	0.4	0.5
SMSA:				
Central City of SMSA	3.0	1.5	0.7	0.7
SMSA, not central city	3.0	1.6	0.6	0.6
Not in SMSA	1.4	0.8	0.3	0.3
Age:				
18-24	1.9	1.0	0.4	0.5
25-34	2.7	1.3	0.6	0.6
35-44	2.7	1.3	0.7	0.6
45-54	3.0	1.5	0.6	0.7
55-64	2.8	1.5	0.5	0.6
65-74	2.2	1.4	0.4	0.4
75-96	2.2	1.4	0.4	0.3
Marital Status:				
Married	2.5	1.3	0.5	0.5
Widowed	2.4	1.4	0.4	0.3
Divorced	2.6	1.3	0.6	0.6
Separated	2.6	1.4	0.5	0.6
Never married	2.8	1.4	0.7	0.7
Race:				
White	2.5	1.3	0.5	0.5
Black	2.7	1.4	0.6	0.6
Other	4.4	2.3	0.9	0.9
Sex:				
Male	2.4	1.2	0.6	0.5
Female	2.7	1.4	0.5	0.6
Education:				
Grade school	0.9	0.5	0.2	0.2
Some high school	1.0	0.7	0.2	0.1
High school graduate	1.9	1.0	0.4	0.4
Some college	3.0	1.6	0.6	0.7
College graduate	4.4	2.1	1.0	1.1
Graduate school	6.7	3.2	1.6	1.4
Work Hours:				
None	2.3	1.3	0.5	0.5
1 to 29	2.7	1.3	0.6	0.6
30 to 39	2.9	1.5	0.7	0.6
40 hrs.	2.4	1.3	0.5	0.5
41 to 49	2.6	1.3	0.6	0.6
50 or more	3.2	1.6	0.7	0.7
Occupation:				
Professional	5.1	2.3	1.2	1.2
Managerial	3.9	1.9	0.9	0.9
Sales, Clerical	2.6	1.3	0.5	0.6
Craftsman	1.8	1.1	0.4	0.3
Operatives	1.5	0.9	0.3	0.2
Laborers	1.6	0.8	0.4	0.3
Service Workers	1.7	1.0	0.3	0.3
Not Working	2.5	1.1	0.6	0.6
Keeping House	2.5	1.4	0.4	0.5
Student	2.2	0.9	0.5	0.7
Retired	1.8	1.0	0.3	0.3
Presence of Children:				
No children	2.6	1.3	0.5	0.6
One 6-11	2.9	1.4	0.7	0.6
Two+ 6-11	2.7	1.4	0.6	0.5
One under 6	2.2	1.2	0.5	0.5
One 6-11, One under 6	2.2	1.2	0.5	0.5
One under 6, Two+ 6-11	2.1	1.2	0.4	0.4
Two+ 6-11	2.7	1.3	0.7	0.6
One 6-11, Two+ under 6	2.3	1.2	0.6	0.5
Two+ 6-11, Two+ under 6	3.9	2.0	0.5	1.5

* Average Index Score is the average number of media used to pursue interest in various art forms.

Index of Participation in All Arts Forms Through All the Media

The graduate school educated (6.7 exposures), professionals (5.1), and $50,000+ income persons (4.8) tend to report the most arts exposures through various types of media in Table 6.6. In contrast, laborers (1.6 exposures), operatives (1.5), persons with some high school education (1.0), and persons in non-SMSA's (1.4) report least arts exposure through the mass media.

In general, the MCA adjustment for the impact of other factors in Table 6.7 changes little in terms of the predicted participation for education groups. However, rates for operatives and laborers become somewhat higher if the influence of education and other factors is statistically controlled. The score for professionals is similarly lower. The association between income and participation is similarly weakened when other factors are controlled, as are the rural-urban differences.

Index of Participation in the Arts via Television

Persons who are better educated, wealthier and in professional occupations are also the most likely to follow the seven core art forms on television. Those of "other" races are also more likely to watch arts performances on television, while young adults aged 18-24 and people in rural areas are less likely to watch.

When other background factors are held constant, the higher rates of television participation for better educated persons are basically unchanged, but the rates for professionals and higher income persons are substantially reduced. Thus, education remains a strong explanatory factor, while the influence of income and professional status seems dependent upon the impact of education and other associated factors. Rural and young adults remain below average in arts exposure via television after MCA controls.

TABLE 6.7: MCA-Adjusted Indices of "Core" Arts Participation Across Media by Selected Background Factors

	All Media	TV	Radio	Recordings
Average Index Score:*	2.6	1.3	0.5	0.5
Income:				
Under $5,000	2.8	1.3	0.6	0.6
$5,000 - $9,999	2.6	1.3	0.6	0.5
$10,000 - $14,999	2.6	1.5	0.6	0.5
$15,000 - $24,999	2.4	1.3	0.5	0.5
$25,000 - $49,999	2.5	1.3	0.5	0.5
$50,000 and over	3.4	1.6	0.8	0.8
Not ascertained	1.9	1.1	0.4	0.4
SMSA:				
Central City of SMSA	2.9	1.4	0.7	0.6
SMSA, not central city	2.8	1.5	0.6	0.6
Not in SMSA	1.9	1.0	0.4	0.4
Age:				
18-24	2.0	1.0	0.4	0.5
25-34	2.5	1.2	0.6	0.6
35-44	2.4	1.1	0.6	0.5
45-54	3.0	1.5	0.6	0.7
55-64	2.9	1.6	0.5	0.6
65-74	1.0	1.8	0.5	0.5
75-96	2.6	1.8	0.4	0.3
Marital Status:				
Married	2.4	1.3	0.5	0.5
Widowed	2.8	1.5	0.7	0.5
Divorced	2.7	1.3	0.6	0.6
Separated	2.6	1.4	0.5	0.6
Never married	2.8	1.4	0.6	0.6
Race:				
White	2.5	1.3	0.5	0.5
Black	3.0	1.6	0.7	0.7
Other	4.1	2.1	0.8	0.9
Sex:				
Male	2.3	1.2	0.5	0.5
Female	2.8	1.5	0.5	0.6
Education:				
Grade school	0.7	0.3	0.2	0.2
Some high school	1.1	0.6	0.2	0.2
High school graduate	2.0	1.1	0.4	0.4
Some college	3.1	1.6	0.6	0.7
College graduate	4.3	2.1	0.9	1.0
Graduate school	6.5	3.2	1.5	1.3
Work Hours:				
None	2.4	1.3	0.5	4.8
1 to 29	2.7	1.3	0.6	0.6
30 to 39	2.8	1.4	0.6	0.6
40 hrs.	2.5	1.3	0.5	0.5
41 to 49	2.4	1.3	0.5	0.5
50 or more	2.9	1.5	0.6	0.7
Occupation:				
Professional	2.5	1.2	0.6	0.6
Managerial	2.5	1.3	0.5	0.5
Sales, Clerical	2.9	1.2	0.5	0.4
Craftsman	2.6	1.5	0.5	0.5
Operatives	2.3	1.4	0.5	0.4
Laborers	2.7	1.4	0.6	0.5
Service Workers	2.0	1.2	0.4	0.4
Not Working	3.2	1.4	0.7	0.7
Keeping House	2.9	1.5	0.6	0.6
Student	2.8	1.3	0.6	0.8
Retired	2.5	1.1	0.5	0.6
Presence of Children:				
No children	2.6	1.3	0.6	0.6
One 6-11	2.7	1.2	0.6	0.6
Two+ 6-11	2.7	1.5	0.5	0.5
One under 6	2.7	1.5	0.5	0.5
One 6-11, One under 6	2.5	1.4	0.5	0.5
One under 6, Two+ 6-11	2.5	1.5	0.4	0.5
Two+ 6-11	2.5	1.3	0.5	0.5
One 6-11, Two+ under 6	2.5	1.4	0.5	0.5
Two+ 6-11, Two+ under 6	1.6	1.0	0.0	0.9

* Average Index Score is the average number of media used to pursue interest in various art forms.

Index of Participation in the Arts via Radio

Professionals, college graduates, members of "other" races, residents of central cities and suburbs, and those in households earning $50,000 and over tend to listen to a broader range of the arts performances on the radio. In contrast, people living outside of SMSA's, those over 65 years of age, those without a high school diploma, operatives, the retired and service workers are somewhat less likely to listen to a range of arts performances on radio.

The below average rates for older people and blue-collar workers and the retired are largely attributable to the influence of other factors, such as education. However, the low rates for the less educated are independent of the effects of the other background factors.

Index of Arts Participation via Recordings

People of certain backgrounds are more likely to use records and tapes to listen to a broad range of music performances (jazz, classical music, opera, or musicals). In particular, better educated and wealthier individuals tend to listen to a wider variety of music through recordings. Certain racial, age and occupation categories also show above or below average differences in listening to arts performances through recordings.

When other factors are controlled, the income differences become less pronounced, suggesting that education and other background factors play an important part in explaining differences in listening patterns for these groups. The strong influence of education, however, remains largely independent of the impact of the other background factors.

In sum, certain social characteristics are associated with following a greater variety of art forms through each of these three media. Whether

TABLE 6.8: Indices of Media Exposure for Each Art Form by Selected Background Factors

	Jazz	Classical Music	Opera	Plays	Musicals
Average Index Score:*	0.5	0.3	0.3	0.3	0.3
Income:					
Under $5,000	0.6	0.2	0.2	0.2	0.2
$5,000 - $9,999	0.4	0.2	0.2	0.2	0.2
$10,000 - $14,999	0.4	0.3	0.2	0.2	0.3
$15,000 - $24,999	0.5	0.2	0.2	0.2	0.2
$25,000 - $49,999	0.6	0.3	0.3	0.3	0.3
$50,000 and over	0.9	0.6	0.6	0.4	0.6
Not ascertained	0.5	0.2	0.2	0.2	0.2
SMSA:					
Central City of SMSA	0.7	0.4	0.3	0.2	0.4
SMSA, not central city	0.6	0.4	0.3	0.3	0.4
Not in SMSA	0.3	0.1	0.1	0.1	0.1
Age:					
18-24	0.7	0.2	0.1	0.2	0.2
25-34	0.7	0.3	0.2	0.3	0.3
35-44	0.6	0.3	0.3	0.3	0.3
45-54	0.5	0.4	0.4	0.3	0.4
55-64	0.4	0.3	0.4	0.3	0.3
65-74	0.3	0.3	0.3	0.2	0.3
75-96	0.2	0.2	0.3	0.2	0.2
Marital Status:					
Married	0.5	0.3	0.3	0.3	0.3
Widowed	0.3	0.3	0.3	0.2	0.3
Divorced	0.5	0.3	0.3	0.2	0.3
Separated	0.8	0.3	0.4	0.2	0.3
Never married	0.8	0.3	0.2	0.3	0.3
Race:					
White	0.5	0.3	0.3	0.3	0.3
Black	1.0	0.2	0.2	0.2	0.2
Other	0.8	0.7	0.5	0.2	0.7
Sex:					
Male	0.6	0.3	0.2	0.3	0.3
Female	0.5	0.3	0.3	0.3	0.3
Education:					
Grade school	0.2	0.1	0.1	0.1	0.1
Some high school	0.3	0.1	0.1	0.1	0.1
High school graduate	0.4	0.2	0.2	0.2	0.2
Some college	0.7	0.3	0.3	0.3	0.3
College graduate	0.9	0.6	0.4	0.4	0.6
Graduate school	1.0	0.9	0.9	0.7	0.9
Work Hours:					
None	0.5	0.2	0.3	0.2	0.2
1 to 29	0.6	0.3	0.2	0.3	0.3
30 to 39	0.6	0.4	0.3	0.3	0.4
40 hrs.	0.5	0.3	0.2	0.2	0.3
41 to 49	0.5	0.3	0.3	0.3	0.3
50 or more	0.8	0.4	0.3	0.3	0.4
Occupation:					
Professional	0.9	0.7	0.6	0.5	0.7
Managerial	0.8	0.5	0.4	0.4	0.5
Sales, Clerical	0.6	0.3	0.2	0.3	0.3
Craftsman	0.4	0.2	0.2	0.2	0.2
Operatives	0.4	0.2	0.1	0.2	0.2
Laborers	0.5	0.2	0.1	0.2	0.2
Service Workers	0.5	0.1	0.1	0.1	0.1
Not Working	0.6	0.2	0.3	0.2	0.2
Keeping House	0.4	0.3	0.3	0.2	0.3
Student	0.8	0.1	0.2	0.1	0.1
Retired	0.3	0.2	0.2	0.2	0.2
Presence of Children:					
No children	0.5	0.3	0.3	0.3	0.3
One 6-11	0.8	0.3	0.3	0.3	0.3
Two+ 6-11	0.6	0.3	0.4	0.3	0.3
One under 6	0.6	0.3	0.2	0.2	0.3
One 6-11, One under 6	0.7	0.2	0.2	0.2	0.2
One under 6, Two+ 6-11	0.3	0.3	0.2	0.2	0.3
Two+ 6-11	0.6	0.2	0.3	0.3	0.2
One 6-11, Two+ under 6	1.0	0.1	0.0	0.2	0.1
Two+ 6-11, Two+ under 6	0.3	0.1	0.0	0.7	0.1

* Average Index Score is the average number of media used to pursue interest in various art forms.

via television, radio, or recordings, college educated persons, higher-level white-collar workers, and persons of other racial backgrounds follow more types of art forms. Education is generally the strongest explanatory factor, with educational differences generally being maintained after MCA adjustment for other factors. In other variables, such as income and occupation, the decrease in variation after adjustment seems to reflect the impact of education, which is closely related to those variables.

2. The Media and Each Art Form

The second line of analysis of multiple media use for arts content focuses on each art form, examining all the various media used to follow that form. Table 6.8 shows the relationship of selected background factors to the average number of media (television, radio, and recordings) used by respondents to pursue their interest in a specific art form. For example, members of households earning over $50,000 in Table 6.8 use an average of 0.9 (of three) media to follow jazz performances, compared to an average of 0.6 media for members of households earning less than $5,000.

Table 6.9 presents the same relationships after adjusting for the influence of other factors. Here the original 0.3 point difference between highest and lowest income groups can be seen to be only 0.1 (0.7-0.6) after MCA control.

The major predictors and explanatory factors follow. Ballet and art museums are not treated in this analysis because they are carried by only one medium. (See Tables 6.3 and 6.4.)

Index of Media Usage for Jazz

People of certain backgrounds tend to follow jazz through the multiple media of television, radio and recordings. Better educated persons, professionals, managers, students and blacks are especially likely to pursue jazz through several media while older people, widows and rural residents are less likely than average to do so.

The higher rates for high income people, professionals/managers, and students, and the lower than average rates for widows are largely attributable to other factors. However, after MCA adjustment for other factors, the sharp distinctions by education and racial background are maintained.

Index of Media Usage for Classical Music

Better educated and wealthier persons, and upper level white-collar workers are more likely to follow classical music through the multiple media of television, radio, and recordings. There is also higher usage among people of "other" races. Age differences are slight with somewhat lower usage among the youngest and oldest groups.

However, much of the variation among categories of income and occupation can be attributed to other factors. Once again, the effect of education is independent of other background factors, and may, in fact, explain some of the variations in other variables before adjustment. After adjustment, women emerge as slightly heavier users of the media for classical music performances.

Index of Media Usage for Opera

Better educated persons, the affluent and professionals tend more than others to follow opera through the media of television, radio and recordings.

The high rates for wealthier persons and professionals are largely attributable to other factors (see the adjusted figure in Table 6.9), probably due to education which is closely associated with both income and occupation. In contrast, the influence of education remains independent of the other background factors, indicating that it is a strong explanatory factor.

Index of Media Usage for Plays

Better educated, high income, professional groups, and whites tend to follow plays on television and radio.

The differences among occupational and income groups, however, are no-

TABLE 6.9: MCA-Adjusted Indices of Media Exposure for Each Art Form by Background Factors

	Jazz	Classical Music	Opera	Plays	Musicals
Average Index Score:*	0.5	0.3	0.3	0.3	0.3
Income:					
Under $5,000	0.6	0.3	0.3	0.3	0.3
$5,000 - $9,999	0.6	0.3	0.2	0.3	0.3
$10,000 - $14,999	0.5	0.3	0.3	0.3	0.3
$15,000 - $24,999	0.5	0.3	0.2	0.3	0.3
$25,000 - $49,999	0.5	0.3	0.3	0.2	0.3
$50,000 and over	0.7	0.4	0.4	0.3	0.4
Not ascertained	0.4	0.2	0.2	0.2	0.2
SMSA:					
Central City of SMSA	0.6	0.4	0.3	0.3	0.4
SMSA, not central city	0.6	0.3	0.3	0.3	0.3
Not in SMSA	0.4	0.2	0.2	0.2	0.2
Age:					
18-24	0.6	0.2	0.1	0.2	0.2
25-34	0.7	0.3	0.2	0.3	0.3
35-44	0.1	0.3	0.3	0.2	0.3
45-54	0.5	0.4	0.4	0.3	0.4
55-64	0.4	0.4	0.4	0.3	0.4
65-74	0.4	0.4	0.4	0.3	0.4
75-96	0.2	0.3	0.4	0.2	0.3
Marital Status:					
Married	0.5	0.3	0.2	0.2	0.3
Widowed	0.6	0.3	0.3	0.3	0.3
Divorced	0.6	0.3	0.3	0.3	0.3
Separated	0.7	0.3	0.4	0.2	0.3
Never married	0.6	0.4	0.3	0.3	0.4
Race:					
White	0.5	0.3	0.3	0.3	0.3
Black	1.1	0.3	0.2	0.3	0.3
Other	0.7	0.7	0.4	0.2	0.7
Sex:					
Male	0.6	0.2	0.2	0.2	0.2
Female	0.5	0.4	0.3	0.3	0.4
Education:					
Grade school	0.3	0.1	0.0	0.1	0.1
Some high school	0.3	0.1	0.1	0.1	0.1
High school graduate	0.4	0.2	0.2	0.2	0.2
Some college	0.7	0.3	0.3	0.3	0.3
College graduate	0.9	0.5	0.4	0.4	0.5
Graduate school	1.0	0.8	0.9	0.7	0.8
Work Hours:					
None	0.5	0.3	0.3	0.3	0.3
1 to 29	0.6	0.3	0.3	0.3	0.3
30 to 39	0.6	0.4	0.3	0.3	0.4
40 hrs.	0.5	0.3	0.3	0.2	0.3
41 to 49	0.4	0.3	0.3	0.2	0.3
50 or more	0.7	0.3	0.3	0.3	0.3
Occupation:					
Professional	0.5	0.3	0.2	0.3	0.3
Managerial	0.5	0.3	0.3	0.3	0.3
Sales, Clerical	0.5	0.3	0.2	0.3	0.3
Craftsman	0.4	0.3	0.3	0.3	0.3
Operatives	0.5	0.3	0.2	0.3	0.3
Laborers	0.6	0.3	0.2	0.3	0.3
Service Workers	0.5	0.3	0.2	0.2	0.2
Not Working	0.7	0.3	0.4	0.2	0.3
Keeping House	0.7	0.3	0.3	0.3	0.3
Student	0.1	0.2	0.3	0.2	0.2
Retired	0.6	0.3	0.2	0.2	0.3
Presence of Children:					
No children	0.5	0.3	0.2	0.3	0.3
One 6-11	0.7	0.3	0.3	0.2	0.3
Two+ 6-11	0.4	0.3	0.4	0.3	0.3
One under 6	0.6	0.4	0.3	0.2	0.4
One 6-11, One under 6	0.3	0.3	0.3	0.2	0.3
One under 6, Two+ 6-11	0.4	0.3	0.3	0.3	0.3
Two+ 6-11	0.7	0.2	0.3	0.3	0.4
One 6-11, Two+ under 6	0.1	0.2	0.2	0.2	0.4
Two+ 6-11, Two+ under 6	0.2	1.0	0.0	0.4	1.0

* Average Index Score is the average number of media used to pursue interest in various art forms.

ticeably diminished when the influence of the other background variables is statistically controlled.

Index of Media Usage for Musicals and Operettas

College graduates, wealthier individuals, professionals, and those of "other" races are most likely to listen to musicals or operettas through the media of television, radio, recordings.

Adjustment for the impact of other factors suggests that the use of more types of media to follow musicals or operettas by high income individuals and professionals is explainable to a considerable extent by other factors such as education. The higher rates for college graduates and those of "other" races are independent of the influence of the other background factors.

Throughout these analyses we see that education is the best predictor of arts participation through several media. Income and occupation are useful predictors, but their impact is weakened when other background factors are controlled. The association between multiple media participation and education is maintained after adjustment for other background variables, indicating that education is a strong explanatory factor.

F) ATTENDANCE AT ART EVENTS AND PARTICIPATION IN THE ARTS THROUGH THE MASS MEDIA

We are also interested in determining whether or not people who participate in the arts through the mass media are also more likely to attend live performances of arts events and to read literature. Table 6.10 presents the data relevant to this hypothesis in terms of correlations between participation via live attendance and via the mass media.

The correlations are all positive except for the weak negative associations between attendance and the variable of hours of watching television in general. Thus, using the media to follow any of the art forms is associated with higher rather than lower attendance at performances of each of these arts. In contrast, television viewing in general (i.e., not for specific arts performances) is associated only weakly with increased attendance at arts performances. In other words, watching television in general may be an alternative to attending arts events, but using TV and other media to follow the arts tends to supplement or stimulate attending arts events.

The main predictors of participation in each type of art performance will be discussed below. (Correlations of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.)

Jazz

Not surprisingly, the best predictors of attending jazz performances are those media variables involved in following jazz. Following jazz via records, via radio, and via television (in that order of strength) are substantial to moderate predictors of attendance at live jazz performances; listening to classical music on recordings is also related to jazz attendance.

Classical Music

Listening to classical music through recordings, radio and television are substantial predictors of attending classical music performances. Participating in virtually all other arts via the media is related, at least moderately, to attendance at classical music performances. (Listening to plays through radio and jazz on television are exceptions to this.)

Opera

Among the media variables, the best predictors of opera attendance are following opera through recordings or radio. However, these are of only moderate strength in predicting attendance, and are not much higher correlates than listening to classical music, musicals and plays on radio.

Musicals

Attendance at musicals is best predicted by watching musicals on television, listening to recordings of musicals, listening to musicals on television or recordings, and listening to classical music on any of the three media, as well as by watching plays or ballet on television.

Plays

The major media variables predicting attendance at plays relate to attending classical music programs. While watching plays on TV is a notable predictor, listening to plays on the radio has little predictive ability. Listening to recordings of musicals and watching musicals on TV relate more to play attendance than listening to plays on radio.

TABLE 6.10: Correlations Between Media Activities and Participation in the "Core" Arts

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
TV Hours	.008	.005	.004	.003	.016	-.099	-.001	-.008
Jazz on TV	.261	.193	.067	.179	.084	.129	.234	.176
Jazz on Radio	.354	.235	.145	.197	.191	.141	.253	.185
Jazz on Recording	.379	.235	.121	.210	.184	.157	.282	.195
Classical on TV	.137	.362	.163	.305	.223	.189	.353	.296
Classical on Radio	.185	.382	.220	.238	.254	.211	.374	.254
Classical on Recording	.218	.399	.150	.244	.287	.193	.375	.263
Opera on TV	.082	.260	.207	.176	.191	.132	.268	.206
Opera on Radio	.064	.258	.266	.145	.135	.142	.264	.178
Opera on Recording	.103	.243	.272	.178	.194	.179	.274	.182
Musical on TV	.102	.224	.151	.279	.199	.146	.233	.233
Musical on Radio	.100	.229	.201	.188	.144	.163	.181	.135
Musical on Recording	.177	.314	.147	.304	.266	.230	.269	.174
Play on TV	.188	.299	.166	.304	.274	.197	.338	.285
Play on Radio	.118	.169	.205	.148	.136	.144	.193	.098
Ballet on TV	.149	.285	.173	.210	.197	.240	.309	.228
Art Museums on TV	.150	.218	.139	.176	.160	.141	.294	.237

Ballet

The attendance of ballet performances is related moderately to listening to classical music radio programs and to musicals on recordings as much as to watching ballet on television.

Art Museums

Participating in almost all art forms through the media -- including viewing visual arts shows on television -- are moderate predictors of visits to art museums and galleries. Such visits are particularly related to listening to classical music on recordings or radio or watching TV performances of classical music.

Reading

Following any of the arts on television (except jazz) has a moderate to substantial association with reading literature. In addition, listening to classical music via radio or recordings also relates moderately to reading literature.

G) INDICES OF MEDIA USE AND ARTS PARTICIPATION

We have just seen that each of the arts media variables has a positive relationship, often of moderate strength, with attending arts performances or reading literature. Nevertheless, another dimension of following the arts via the media could show an alternative relationship with attendance or reading literature. The alternative can be described as follows. As certain people use more media to participate, they may be less likely to attend live performances as the media become a substitute for attendance. In contrast, as people follow an art form through several media, they may be more likely to attend live performances. Here media participation may reflect or stimulate enthusiasm for that art form. In other words, do people use more forms of media to substitute for attendance at the arts, or do people who use more media attend more frequently?

The data in Table 6.11 suggest that people who follow the arts through more of the 16 media/arts combinations are generally more likely to attend live arts events as well. Thus, the tendency is to supplement arts attendance with media participation rather than to substitute the media for attendance. Those who watch jazz on all three media are more likely to attend a live jazz performance (44%) than those who use none of the media (2%).

The closest thing to an exception to this tendency is musicals; those who follow musicals through the three media (television, radio and recordings) are only slightly more likely to attend live musicals (58%) than those who use only two media (55%). However, it should be noted that the attendance rate for those following musicals through all three media (58%) is still over three times the average rate and five times higher than those who used no media (10%).

Table 6.12 presents these relationships after controlling for the effects of selected background factors such as education, age and income. The extent to which the variation predicted by a media/arts variable is affected by associated background variables can be ascertained by comparing Tables 6.11 and 6.12. For example, if education were associated with both greater media usage and greater arts attendance, then the relationship between attendance and media usage might be explainable largely in terms of education.

A comparison of the two tables suggests that the predictive strength of media usage in predicting attendance is only slightly diminished by holding background factors constant. (The only thing close to an exception concerns musicals. As noted above, using two media is almost a better predictor of attendance than using all three media.) We can conclude that attendance at the arts and reading literature is at least partially a function of broader media usage to follow the arts.

This is also reflected in the final two columns of Table 6.11 and 6.12, in which participation differences across all 16 media/arts combinations can be observed. Here, we can first see that the more media are used for the arts in general, the higher the overall index scores for attendance at various types of arts events. There are occasional reversals in this column, but these are largely a function of the small sample sizes for high usage groups and are occasionally straightened out after MCA control. Thus, those who watch seven media/arts types of programs score 2.1 on the participation index vs. 1.9 for those who watch eight types and 1.8 for those who watch nine; after MCA control, the index score drops to 1.8 for those in the seven category, but also to 1.7 and 1.5 for those in the eight

TABLE 6.11: Participation Rate for Each Art Activity by Number of Media Used to Follow the Same Art Form

ATTENDANCE

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index	Reading
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	0.8	56%
Number of Media Used for Each Art:									
0	2	3	1	10	6	3	15	0.2	37
1	11	13	5	34	25	17	42	0.5	50
2	30	30	8	55	34	NA	NA	0.6	64
3	44	52	36	58	NA	NA	NA	0.9	78
4	NA	NA	NA	NA	NA	NA	NA	1.1	77
5	NA	NA	NA	NA	NA	NA	NA	1.5	78
6	NA	NA	NA	NA	NA	NA	NA	1.6	86
7	NA	NA	NA	NA	NA	NA	NA	2.1	85
8	NA	NA	NA	NA	NA	NA	NA	1.9	74
9	NA	NA	NA	NA	NA	NA	NA	1.8	85
10	NA	NA	NA	NA	NA	NA	NA	2.2	90
11	NA	NA	NA	NA	NA	NA	NA	2.9	94
12	NA	NA	NA	NA	NA	NA	NA	3.5	100
13	NA	NA	NA	NA	NA	NA	NA	3.3	100
14	NA	NA	NA	NA	NA	NA	NA	4.0	100
15	NA	NA	NA	NA	NA	NA	NA	5.4	100
16	NA	NA	NA	NA	NA	NA	NA	3.8	100

* The participation index is an average of the number of types of arts performances attended in the previous 12 months. It covers attendance at jazz, classical music, opera, musical, plays, ballet or art museum activities, but excludes reading literature.

** These grand means differ slightly from those presented in Chapter 3 due to sampling error and the calculation of these means from a smaller sample.

and nine categories. The same is true for the lower index scores for those watching 16 types versus 14 or 15 types before and after control. Despite these reversals, the overall trends in the table are clearly towards more participation given more media exposure.

The last columns in the two tables show using the media for arts performances is also related to higher reading of literature. Again, there are reversals for certain usage groups. There is also some reduction in variation explained after MCA control. Nonetheless, those who say they report more than five media/arts types are still more than twice as likely after MCA control to read literature as those who use no media for arts content.

TABLE 6.12: MCA-Adjusted Participation Rate for Each Art Activity by Number of Media Used to Follow the Same Art Form

	ATTENDANCE								
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index	Reading
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	0.8	56%
Number of Media Used for Each Art:									
0	3	5	1	12	7	3	17	0.3	41
1	10	11	4	30	21	15	36	0.5	52
2	28	25	6	47	28	NA	NA	0.7	63
3	41	45	34	50	NA	NA	NA	0.8	74
4	NA	NA	NA	NA	NA	NA	NA	1.1	73
5	NA	NA	NA	NA	NA	NA	NA	1.4	75
6	NA	NA	NA	NA	NA	NA	NA	1.4	83
7	NA	NA	NA	NA	NA	NA	NA	1.8	76
8	NA	NA	NA	NA	NA	NA	NA	1.7	69
9	NA	NA	NA	NA	NA	NA	NA	1.5	77
10	NA	NA	NA	NA	NA	NA	NA	1.9	82
11	NA	NA	NA	NA	NA	NA	NA	2.6	93
12	NA	NA	NA	NA	NA	NA	NA	2.9	88
13	NA	NA	NA	NA	NA	NA	NA	2.7	89
14	NA	NA	NA	NA	NA	NA	NA	3.6	88
15	NA	NA	NA	NA	NA	NA	NA	5.2	100
16	NA	NA	NA	NA	NA	NA	NA	3.3	98

* The participation index is an average of the number of types of arts performances attended in the previous 12 months. It covers attendance at jazz, classical music, opera, musical, plays, ballet or art museum activities, but excludes reading literature.

SUMMARY

Analysis of the responses to the questions about arts participation through the media has led to several conclusions. The mass media reach a wider arts audience (typically up to twice as large) than do live performances. The media also reach approximately the same size audience as art museums and galleries for those interested in the visual arts. Except for jazz and classical music, television reaches a much wider audience for each of the art forms than do either radio or recordings. Across the various arts types, visual arts via television reach the largest audiences, followed by classical music, plays, musicals, jazz, ballet and opera.

Education is generally the strongest background predictor of using a media form to follow an art form. Those of other races (mainly Asian-Americans) are also heavy users of the media for arts. Higher income and professional persons are also heavier users, less so after control for education and other factors.

A factor analysis indicates that patterns of arts participation via the media tend to be clustered more strongly around the type of medium than around types of art. The main exception is jazz, for which participation through one medium is strongly correlated with listening to it via the other two media.

People who use more types of media per art form, or follow more arts through the media, tend to share certain social characteristics: college education; "other" races; higher income households; and professional occupation. Again, only education and race tend to survive control for other factors.

Finally, participation in an art form via one medium or multiple media tends to be positively associated with attendance at related live performances-- and at unrelated art forms and with reading literature.

In summary, participation via the media is not an alternative to direct participation; instead the media tend to supplement, or perhaps stimulate, participation through attendance at live arts events.

Chapter 7

SOCIALIZATION INTO THE ARTS

Certain SPA questions were also concerned with the ways in which people acquire an interest in the arts. It is reasonable to assume that parental encouragement, as well as lessons and classes in childhood and adolescence, form the basis for appreciation of, and participation in, the arts in adulthood. The survey thus included a series of questions relating to early socialization into the arts. The objective of this chapter is to examine the linkage between such socialization experiences and arts participation later in life.

This chapter presents the socialization questions and the tabulations of respondents' answers (Table 7.1) for the month of February during which these questions were asked. The subsequent analysis was directed toward the following issues:

1) What proportion of the public recalls early socialization experiences related to the arts?

2) Do people of different backgrounds (e.g., race, gender) vary in their reported socialization experiences in the arts?

3) How well do these background factors predict socialization experiences?

4) Do arts socialization experiences tend to fall into patterns? For example, if respondents report having had acting lessons, are they also likely to have had other types of lessons?

5) Do people of different backgrounds tend to have taken art classes/lessons or been introduced to a range of arts by parents or other household members? Are the variables that provide prediction also the major explanatory factors?

6) Are some of these socialization experiences better predictors than others of attending arts events later in life? For example, is visiting an art museum as an adult associated with frequent visits to art museums with parents or with art classes?

7) Is there an association between the range of socialization experiences and attending arts events? If so, does a greater range of socialization experiences provide a good explanation for attendance at arts events in adulthood?

A) SOCIALIZATION QUESTIONS AND RESPONSES

The socialization questions asked whether respondents had ever taken lessons or classes in music, visual arts, acting or theater, ballet, creative writing, arts/crafts, art appreciation or history, or music appreciation. If the answer to any of these was affirmative, the respondent was then asked at what age s/he attended such classes. Unlike other questions in the survey, multiple responses were possible, but our analysis will focus only on the earliest age at which lessons were started, as this represents the first socialization experience in the arts.

A series of questions was related to parental influence on the respondent's earliest introduction to the arts. One question focused on adults in the household who listened to classical music or opera in the home, thus providing an indirect role model for these art forms. Two other questions inquired about early experiences of being taken to art exhibits, plays, dance or classical music performances. A final question in this series focused on general encouragement to read by parents or other relevant adults in the household.

The last group of questions asked about the educational level of the respondent's mother and father. Parents' educational levels may be associated with the type and range of socialization experiences available to the child, given the strong relations between respondent's educational level and most SPA questions that we have already received.

The questions and the number of responses for each category are shown in Table 7.1. For question 36a, for instance, 1,148 of the 2,374 respondents reported that they had taken a music lesson or class at some time; 620 had taken these lessons before the age of twelve. Question 37 refers

TABLE 7.1: Socialization Experiences (N=2374)

SOCIALIZATION N=2374

36a. The following questions are about lessons or classes you may have taken at any time in your life.
Have you EVER taken lessons or a class in music — —either voice training or playing an instrument?
0 ☐ No 1226
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 1148
1 ☐ **Less than 12 years old?** 620
2 ☐ **12—17 years old?** 770
3 ☐ **18—24 years old?** 192
4 ☐ **25 or older?** 116

b. (Have you EVER taken lessons or a class) in visual arts such as sculpture, painting, print making, photography, film making, etc.?
0 ☐ No 1755
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 619
1 ☐ **Less than 12 years old?** 85
2 ☐ **12—17 years old?** 332
3 ☐ **18—24 years old?** 237
4 ☐ **25 or older?** 173

c. (Have you EVER taken lessons or a class) in acting or theater?
0 ☐ No 2130
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 244
1 ☐ **Less than 12 years old?** 24
2 ☐ **12—17 years old?** 161
3 ☐ **18—24 years old?** 78
4 ☐ **25 or older?** 30

d. (Have you EVER taken lessons or a class) in ballet?
0 ☐ No 2162
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 212
1 ☐ **Less than 12 years old?** 153
2 ☐ **12—17 years old?** 60
3 ☐ **18—24 years old?** 38
4 ☐ **25 or older?** 27

e. (Have you EVER taken lessons or a class) in creative writing?
0 ☐ No 1926
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 448
1 ☐ **Less than 12 years old?** 23
2 ☐ **12—17 years old?** 204
3 ☐ **18—24 years old?** 252
4 ☐ **25 or older?** 74

f. (Have you EVER taken lessons or a class) in pottery, leatherwork, weaving, woodworking, or any other craft-art?
0 ☐ No 1524
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 850
1 ☐ **Less than 12 years old?** 97
2 ☐ **12—17 years old?** 448
3 ☐ **18—24 years old?** 227
4 ☐ **25 or older?** 292

g. (Have you EVER taken a class) in art appreciation or art history?
0 ☐ No 1888
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 486
1 ☐ **Less than 12 years old?** 17
2 ☐ **12—17 years old?** 171
3 ☐ **18—24 years old?** 315
4 ☐ **25 or older?** 61

h. (Have you EVER taken a class) in music appreciation?
0 ☐ No 1874
Yes — **Did you take these lessons when you were — —**
(Mark all that apply.) 500
1 ☐ **Less than 12 years old?** 44
2 ☐ **12—17 years old?** 243
3 ☐ **18—24 years old?** 269
4 ☐ **25 or older?** 32

CHECK ITEM D
Are either of respondent's parents present during asking of 37a—38b?
0 ☐ No } *Ask 37a* 2221
1 ☐ Yes } 103 NA=50

37a. The following questions are about activities in the home when you were growing up.
Did your parents — —or other adult members of the household — —listen to classical music or opera often, occasionally, or never?
1 ☐ Often 216
2 ☐ Occasionally 567
3 ☐ Never 1576 NA=15

b. Take you to art museums or galleries often, occasionally, or never?
1 ☐ Often 118
2 ☐ Occasionally 725
3 ☐ Never 1517 NA=14

c. Take you to plays, dance or classical music performances (often, occasionally, or never)?
1 ☐ Often 128
2 ☐ Occasionally 662
3 ☐ Never 564 NA=20

d. Encourage you to read books which were not required for school or religious studies (often, occasionally, or never)?
1 ☐ Often 919
2 ☐ Occasionally 673
3 ☐ Never 772 NA=10

CHECK ITEM E
Look at Control Card items 13a, b, and c to determine whether respondent's parents are household members.
1 ☐ Neither parent is household member — *Read* Ⓐ *and ASK 38a and 38b.* 2070
2 ☐ Both parents are household members — *Transcribe father's education to 38a and mother's education to 38b based on cc 21 and 22. END INTERVIEW.* 157
3 ☐ Only father is a household member — *Read* Ⓐ *and ASK 38b. Transcribe father's education to 38a from cc 21 and 22.* 22
4 ☐ Only mother is a household member — *Read* Ⓐ *and ASK 38a. Transcribe mother's education to 38b based on cc 21 and 22.* 71

Ⓐ **Now I'd like to ask you a question about your parent's education. This information, along with the other information in this survey, will be used to study the relationship between these things and participation in the arts.**

38a. What is the highest grade (or year) of regular school your FATHER completed?
1 ☐ 7th grade or less 429
2 ☐ 8th grade 284
3 ☐ 9th—11th grades 196
4 ☐ 12th grade 599
5 ☐ College (did not complete) 177
6 ☐ Completed college (4 - years) 270
7 ☐ Don't know 401 NA=18

b. What is the highest grade (or year) of regular school your MOTHER completed?
1 ☐ 7th grade or less 353
2 ☐ 8th grade 244
3 ☐ 9th—11th grades 272
4 ☐ 12th grade 774
5 ☐ College (did not complete) 200
6 ☐ Completed college (4 - years) 198
7 ☐ Don't know 313 NA=20

END THIS LAS INTERVIEW

NOTES

to experiences in the home while growing up. Thus, in response to 37a, 216 respondents claimed that their parents often listened to classical music or opera, 567 occasionally and 1,576 never; some 15 respondents gave uncodeable answers. In response to Question 38a, dealing with fathers' education, 429 respondents reported their father's educational achievement as 7th grade or less, and 599 as 12th grade; 401 respondents said they did not know their father's educational level and 18 gave uncodeable responses.

It is important to caution the reader about an important methodological issue in the collection of socialization data, one which might distort its apparent relationship with arts participation. Questioning the respondent first about recent arts participation and later about related socialization experiences may well raise the salience of recalled socialization experiences. People who attended recent arts events might have better recall of related arts socialization experiences, or they might have exaggerated their early arts exposure. Both possibilities would inflate the apparent relationship between socialization experiences and arts participation, and provide inflated socialization estimates. The same issue applies as well, of course, to questions on mass media, music preferences and desire for more participation, but the issue seems more important in connection with socialization questions, because respondents are asked to recall much earlier life experiences than the type of "past year" information collected in the other survey questions.

B) POPULATION ESTIMATES OF SOCIALIZATION EXPERIENCES

The responses from the sample in Table 7.1 are generalized in Table 7.2 to the U.S. adult population, after weighting to improve representativeness. Table 7.2a presents the population percentages, while Table 7.2b

TABLE 7.2a: Rates of Exposure to Art Socialization Experiences: Percentages of the Adult Population Exposed

		Lessons or Classes at Ages:			
Lessons or classes:	Ever	Less than 12	12-17	18-24	25 or more
Music	47%	25%	31%	8%	4%
Visual arts	25	3	14	9	7
Acting	10	1	7	3	1
Ballet	8	6	2	1	1
Creative Writing	18	1	9	10	3
Arts/crafts	34	4	19	9	11
Art appreciation	19	1	7	12	2
Music appreciation	20	2	2	10	2

Parent-Mediated:	Often	Occasionally	Never
Listened to classical music/opera	9%	23%	68%
Took to museums	4	30	66
Took to plays/dance/classical music performances	5	27	68
Encouraged reading	37	29	34

TABLE 7.2b: Population Estimates for Art Socialization Experiences: Number of Adults Exposed (in millions)

		Lessons or Classes at Ages:			
Lessons or classes:	Ever	Less than 12	12-17	18-24	25 or more
Music	79.4	42.1	53.0	13.6	7.6
Visual arts	42.3	5.5	23.3	15.7	11.0
Acting	19.6	1.5	11.4	15.3	3.6
Ballet	13.6	9.8	3.9	2.3	1.6
Creative Writing	30.6	1.6	14.6	16.5	5.0
Arts/crafts	57.8	6.2	31.8	15.5	18.2
Art appreciation	32.9	1.0	12.2	20.7	3.9
Music appreciation	33.5	3.0	16.2	17.7	2.5

Parent-Mediated:	Often	Occasionally	Never
Listened to classical music/opera	15.0	38.8	116.7
Took to museums	7.9	50.4	112.5
Took to plays/dance/classical music performances	8.6	45.4	116.5
Encouraged reading	63.1	49.2	58.2

expresses these percentages in estimated absolute numbers giving each response. For instance, 47% of the population are projected to have taken music lessons, and 25% to have taken such music lessons before they were 12 years of age.

Music lessons are by far the most common socializing experience concerning the arts. Lessons in the visual arts and arts/crafts (pottery, leatherwork, weaving, etc.) are also relatively common, experienced by about a quarter to a third of the population. Almost a fifth of the population had taken lessons or classes in creative writing, art appreciation or history, and music appreciation. An even lower percentage, 10% or less, had taken lessons in acting or ballet.

As children, only a small percentage (5-10%) of respondents were frequently exposed to classical music, opera, art museums, plays, or dance, by their parents or other household members, and approximately two-thirds said they were never exposed to these arts. If these types of parent-mediated experiences seem relatively rare, the final type is quite common; most adult respondents (66%) remember being encouraged to read.

Finally, in Table 7.2c, it can be seen that 19% of respondents reported having a father with an educational level of 7th grade or lower. In comparison, 16% reported having a mother with the same educational background. Some 10% of respondents reported having a father who had completed college, as opposed to 8% for mothers. However, 19% said they did not know their father's educational level, and 15% did not know their mothers' educational level.

TABLE 7.2c: Education Levels of Respondents' Parents: Percentage Reporting Particular Levels of Education for Each Parent

Highest grade of education:	Father	Mother
7th grade or less	19%	16%
8th grade	12	9
9-11th grade	8	12
12th grade	25	32
College (not completed)	7	8
Completed college	10	8
Don't know parents' education	19	15
	----	----
	100%	100%

C) BACKGROUND DIFFERENCES IN SOCIALIZATION EXPERIENCES

Socialization into the arts tends to differ for people with varying social backgrounds. Tables 7.3a and 7.3b present the association between 10 background variables and socialization experiences. Tables 7.4a and 7.4b show the same associations between socialization experiences and each variable, after adjusting for the other background variables. For example, those with higher incomes are more likely to have taken music lessons (Table 7.3a). However, after adjustment for other factors (Table 7.4a), the income variation is considerably reduced, indicating that much of the influence of income may be due to other associated factors (e.g., education).

Discussion of each socialization experience follows, highlighting the major background differences. It will be noted that the discussion focuses on any socialization experience, and not the year at which it occurred.

Music Lessons

Respondents with at least some college education are much more likely to have taken music lessons at some time in their lives. Younger adults, women, whites and other races, professionals, students, and the more affluent are also more likely than average to have taken music lessons at some point in their lives. Much of the variation for occupation and income, however, is attributable to the impact of education and other background factors.

Visual Art Lessons

Those with at least some college education are more likely to have taken art classes as young adults, as are those adults under 35, those

TABLE 7.3a: Art Socialization through Lessons or Classes by Selected Background Factors: Percentage of Respondents Above or Below the Grand Mean

	Music	Visual Arts	Acting	Ballet	Creative Writing	Arts/ Crafts	Art Apprec.	Music Apprec.
Grand Mean:	47%	25%	10%	8%	18%	34%	19%	20%
Income:								
Under $5,000	30	16	6	5	10	23	9	10
$5,000 - $9,999	32	12	5	3	8	18	7	10
$10,000 - $14,999	46	29	10	7	18	29	15	17
$15,000 - $24,999	45	25	11	7	20	35	22	22
$25,000 - $49,999	55	30	12	11	21	43	24	23
$50,000 and above	68	33	14	12	29	44	31	30
Not ascertained	44	22	7	8	14	31	20	20
SMSA:								
Central city of SMSA	45	27	13	8	20	34	21	22
SMSA, not central city	49	28	10	9	20	39	22	22
Not in SMSA	45	19	7	6	13	27	14	15
Age:								
18-24	56	34	14	12	29	44	17	16
25-34	58	37	14	13	27	45	30	26
35-44	47	24	9	9	19	33	22	25
45-54	47	18	8	4	13	33	19	20
55-64	34	14	6	3	8	23	11	14
65-74	31	14	6	3	8	18	11	12
75-96	30	10	6	3	3	17	10	11
Marital Status:								
Married	46	24	9	7	15	35	19	19
Widowed	29	9	6	4	9	14	12	13
Divorced	49	27	12	12	20	31	21	24
Separated	49	25	12	4	17	22	13	20
Never Married	55	34	14	11	30	42	22	23
Race:								
White	48	26	10	9	19	35	20	20
Black	37	17	8	3	12	28	17	17
Other	48	30	10	5	9	27	10	18
Sex:								
Male	44	25	8	1	17	34	18	18
Female	49	25	12	14	19	34	21	21
Education:								
Grade school	4	1	@	0	@	4	0	@
Some high school	29	8	4	2	2	16	2	4
High school graduate	43	20	6	5	9	35	10	11
Some college	69	41	17	16	34	49	28	31
College graduate	70	42	16	17	37	49	51	48
Graduate school	72	51	23	14	49	46	57	52
Work Hours:								
None	41	20	8	7	13	28	14	15
1 to 29	55	34	14	15	25	42	25	29
30 to 39	49	22	10	10	18	32	14	21
40 hrs.	46	28	10	8	18	36	23	19
41 to 49	52	23	10	7	20	40	22	25
50 or more	55	31	13	5	26	40	26	22
Occupation:								
Professional	70	42	21	13	43	45	44	43
Managerial	56	32	14	8	25	40	32	28
Sales, Clerical	55	30	14	15	22	43	26	25
Craftsman	44	21	6	2	10	34	9	12
Operatives	37	17	3	2	8	24	9	7
Laborers	39	26	3	1	15	32	15	17
Service Workers	36	23	10	7	14	33	13	16
Not working	42	18	6	4	15	27	12	13
Keeping house	39	18	7	8	11	28	13	14
Student	64	42	21	18	45	47	32	25
Retired	36	16	8	2	5	26	11	15
Presence of Children:								
No Children	46	25	11	8	19	33	44	21
One 6-11	44	23	6	10	15	34	32	22
Two+ 6-11	50	21	9	14	11	33	26	17
One Under 6	49	34	7	9	23	37	9	18
One 6-11, One Under 6	47	21	2	7	9	36	9	15
One Under 6, Two+ 6-11	45	18	10	2	14	35	15	18
Two+ Under 6	59	30	10	12	18	44	20	21
One 6-11, Two+ Under 6	68	18	11	10	22	22	11	8
Two+ 6-11, Two+ Under 6	60	19	14	0	13	13	4	15

@ Less than 0.5%.

earning more than $25,000, professionals and students. However, much of the predictability by occupation and income is due to education and associated factors.

Acting or Theater Classes

Those with higher levels of education are considerably more likely than the average to have taken acting or theater classes. Those earning $25,000 annual income, younger adults, professionals, students, and to a lesser extent, females are also somewhat more likely than average to have taken such classes, before MCA adjustment.

Ballet Lessons

The strongest of the 10 predictors of having taken ballet lessons are gender and education--women and those with at least some college education being the most likely to have taken lessons or classes in ballet. These differences hold up after MCA control. Those with higher incomes and younger adults also are more likely than average to have taken ballet lessons or classes. On the other hand, those of "other" races are very low in having taken ballet lessons or having ballet training.

Creative Writing Lessons

Younger adults and those with higher education levels are much more likely than the average to have taken creative writing lessons or classes. Whites also tend to have taken creative writing courses. While professionals, students and the more affluent also tend more than the average to have had such training, these differences lessen if other background factors are held constant. Probably education accounts at least partially for the original (unadjusted) association.

TABLE 7.3b: Rates of Parent-Mediated Art Socialization Experiences by Background Factors:

	Home Listening to Classical/ Opera (often)	Taken to Art Museums Galleries (often)	Taken to Plays Dance (often)	Encouraged Reading Books (often)
Grand Mean:	9%	5%	5%	37%
Income:				
Under $5,000	3	4	3	25
$5,000 - $9,999	5	4	2	26
$10,000 - $14,999	8	5	6	35
$15,000 - $24,999	11	5	5	39
$25,000 - $49,999	10	5	7	41
$50,000 and over	14	3	6	48
Not ascertained	6	4	3	39
SMSA:				
Central city of SMSA	10	5	6	40
SMSA, not central city	11	6	6	40
Not in SMSA	5	3	3	30
Age:				
18-24	8	5	6	35
25-34	10	6	5	42
35-44	9	6	5	37
45-54	8	4	5	33
55-64	8	4	4	37
65-74	10	3	4	34
75-96	7	2	4	26
Marital Status:				
Married	8	5	5	36
Widowed	9	4	6	33
Divorced	10	4	4	38
Separated	7	1	0	40
Never Married	10	6	7	42
Race:				
White	9	5	5	37
Black	5	4	2	39
Other	17	6	6	46
Sex:				
Male	7	4	3	31
Female	10	6	7	42
Education:				
Grade school	3	1	0	10
Some high school	5	1	2	18
High school graduate	6	3	4	34
Some college	12	7	8	52
College graduate	19	11	14	57
Graduate school	17	9	8	57
Work Hours:				
None	9	4	5	36
1 to 29	11	5	6	42
30 to 39	6	6	4	37
40 hrs.	7	5	5	35
41 to 49	11	3	3	32
50 or more	10	6	5	42
Occupation:				
Professional	17	11	9	55
Managerial	13	8	6	48
Sales, Clerical	9	7	6	44
Craftsman	6	1	2	27
Operatives	2	2	1	25
Laborers	4	2	5	18
Service Workers	6	3	3	30
Not working	8	4	3	30
Keeping house	10	4	6	37
Student	9	3	12	53
Retired	9	2	4	38
Presence of Children:				
No children	9	5	6	38
One 6-11	10	2	3	39
Two+ 6-11	3	3	5	41
One Under 6	8	3	2	39
One 6-11, One Under 6	4	1	5	24
One Under 6, Two+ 6-11	10	6	5	29
Two+ Under 6-11	9	8	6	28
One 6-11, Two+ Under 6	6	0	0	41
Two+ 6-11, Two+ Under 6	0	4	4	19

Crafts Lessons

Those with higher levels of education and younger adults are more likely to have taken lessons or classes in pottery, leatherwork, weaving, woodworking, or any other arts/crafts. Professionals, students and respondents with higher incomes are also more likely to have attended such lessons, but this trend is largely attributable to education and other factors. People of "other" racial origins have a less than average likelihood of having taken craft lessons.

Art Appreciation or Art History Courses

Educational level is a strong predictor of having taken art appreciation or art history courses; a person with post graduate training is about five times as likely as a high school graduate to have taken such a class. After age 34, the likelihood of ever having taken such courses declines. Exposure to art history classes increases with income, but much of this variation with income is attributable to the influence of other factors, probably education. People of "other" races are much less likely than the average to have taken such classes, and this lower participation is decreased after other factors are controlled.

Music Appreciation Classes

As in the case of art appreciation and art history courses, higher educational levels are strongly associated with having taken music appreciation classes. Blacks are almost as likely to have taken such classes as whites. Those aged 25-54, as well as the more affluent, are more likely than the average to have taken a music appreciation class, but the differences by income are largely the result of associated factors such as education.

TABLE 7.4a: MCA-Adjusted Art Socialization through Lessons or Classes by Selected Background Factors

	Music	Visual Arts	Acting	Ballet	Creative Writing	Arts/ Crafts	Art Apprec.	Music Apprec.
Grand Mean:	47%	25%	10%	8%	18%	34%	19%	20%
Income:								
Under $5,000	43	27	9	7	16	36	19	19
$5,000 - $9,999	42	22	8	6	16	29	17	19
$10,000 - $14,999	45	29	10	7	19	28	17	19
$15,000 - $24,999	45	25	12	7	21	35	23	23
$25,000 - $49,999	50	25	10	10	17	39	18	18
$50,000 and Above	55	22	9	10	17	35	14	15
Not ascertained	47	22	8	8	15	30	21	21
SMSA:								
Central city of SMSA	46	27	13	9	20	34	21	22
SMSA, not central city	47	26	9	8	19	37	20	20
Not in SMSA	48	22	9	8	16	30	17	17
Age:								
18-24	56	34	15	12	29	45	21	18
25-34	52	34	14	12	25	43	27	24
35-44	44	24	10	9	19	32	20	25
45-54	45	17	6	3	12	31	16	19
55-64	40	17	6	4	10	25	14	16
65-74	38	16	5	3	8	21	12	13
75-96	41	15	7	5	3	24	12	12
Marital Status:								
Married	46	26	10	8	17	36	20	19
Widowed	50	23	10	6	24	32	16	23
Divorced	49	26	10	11	18	32	18	21
Separated	57	30	13	6	22	27	17	24
Never Married	47	23	8	8	19	32	15	18
Race:								
White	47	26	10	8	19	34	19	20
Black	44	20	10	5	16	33	22	22
Other	43	23	7	3	2	22	4	8
Sex:								
Male	42	24	7	@	16	33	16	17
Female	51	25	12	15	20	35	22	22
Education:								
Grade school	9	6	3	4	6	10	3	2
Some high school	31	10	6	4	6	19	4	4
High school graduate	42	18	7	4	8	18	9	11
Some college	66	39	16	14	31	47	27	30
College graduate	68	40	15	16	34	47	49	48
Graduate school	72	35	21	15	47	47	58	51
Work Hours:								
None	49	23	10	7	15	27	20	22
1 to 29	52	32	12	12	24	42	22	24
30 to 39	49	23	9	8	18	35	11	18
40 hrs	46	26	9	8	18	38	20	16
41 to 49	48	20	9	8	19	40	19	23
50 or more	48	26	12	6	22	38	19	15
Occupation:								
Professional	45	19	15	6	23	25	20	24
Managerial	45	22	11	8	16	27	20	20
Sales, Clerical	48	25	11	11	16	30	23	21
Craftsman	48	23	10	8	12	30	16	21
Operatives	40	19	7	5	11	17	19	15
Laborers	48	21	6	7	17	24	18	21
Service Workers	39	24	10	6	14	32	17	20
Not working	53	26	8	7	22	42	18	17
Keeping house	48	29	9	6	21	44	18	16
Student	47	27	13	11	30	38	24	15
Retired	53	28	12	12	18	48	18	20
Presence of Children:								
No Children	47	27	12	8	20	35	21	22
One 6-11	44	22	6	8	14	33	18	14
Two+ 6-11	47	14	6	11	5	27	7	11
One Under 6	40	24	3	4	14	27	13	13
One 6-11, One Under 6	47	18	1	5	7	31	18	16
One Under 6, Two+ 6-11	52	14	10	1	12	34	12	18
Two+ Under 6	54	22	7	10	12	37	13	17
One 6-11, Two+ Under 6	61	7	7	6	15	12	2	1
Two+ 6-11, Two+ under 6	71	22	17	2	19	42	4	24

@ Less than 0.5%.

Introduction to Classical Music or Opera

Turning to the data described in Tables 7.3b and 7.4b, people earning $50,000 or more are almost twice as likely as those earning under $15,000 to say their parents often listened to classical music or opera. This likelihood also rises among those with increased education. People of "other" races and professionals are also somewhat more likely than the average to have had parents who were frequent listeners, with the racial differences surviving better after multivariate control. Women are more likely than men to report this behavior of their parents, but unless families with children of different sexes actually have different listening patterns, the higher rate for women may be a function of selective memory on the part of women (or of selective forgetting among men).

Introduction to Art Museums or Galleries

The better educated and professionals/managers are more likely to have had parents who often took them to art museums or galleries. Education survives better after MCA control. Age is a relatively weak predictor, although younger people still report higher rates, after adjustment for the impact of other factors. Women are more likely than men to report having had parents who often took them to art displays.

Introduction to Plays, Dance, or Classical Music Performances

Those with at least some college education and women most commonly had parents who often took them to performances of plays, dance, and classical music. Students and professionals are somewhat more likely to have had such socialization experiences, but only the rate for students is above average after MCA control.

TABLE 7.4b: MCA-Adjusted Rates of Parent-Mediated Art Socialization Experience s by Background Factors

	Home Listening Classical Opera (often)	Taken to Art Musemums Galleries (often)	Taken to Plays Dance (often)	Encouraged Reading Books (often)
Grand Mean:	9%	4%	5%	37%
Income:				
Under $5,000	4	6	4	33
$5,000 - $9,999	7	7	5	34
$10,000 - $14,999	7	6	7	35
$15,000 - $24,999	12	5	5	40
$25,000 - $49,999	9	4	6	38
$50,000 and above	10	0	3	36
Not ascertained	6	4	3	38
SMSA:				
Central city of SMSA	10	5	6	39
SMSA, not central city	10	6	5	38
Not in SMSA	6	3	4	34
Age:				
18-24	9	6	5	41
25-34	9	6	4	40
35-44	4	6	6	36
45-54	7	4	5	31
55-64	9	4	5	39
65-74	11	3	5	36
75-96	7	2	4	28
Marital Status:				
Married	8	5	5	37
Widowed	11	6	7	43
Divorced	10	3	3	36
Separated	10	1	1	33
Never Married	9	5	6	36
Race:				
White	9	5	5	36
Black	7	5	3	43
Other	15	5	4	42
Sex:				
Male	6	3	2	31
Female	11	6	8	43
Education:				
Grade school	3	1	0	11
Some high school	6	2	2	19
High school graduate	6	3	3	35
Some college	12	7	8	51
College graduate	19	11	14	57
Graduate school	16	9	8	57
Work Hours:				
None	10	5	5	38
1 to 29	10	3	5	39
30 to 39	6	5	4	36
40 hrs.	7	5	6	35
41 to 49	12	3	5	31
50 or more	9	6	5	40
Occupation:				
Professional	11	8	5	39
Managerial	10	7	5	41
Sales, Clerical	7	6	4	38
Craftsman	11	3	5	36
Operatives	6	4	3	35
Laborers	9	4	5	31
Service Workers	8	4	4	32
Not working	9	4	5	34
Keeping house	9	4	5	37
Student	5	0	9	41
Retired	9	4	6	46
Presence of Children:				
No Children	9	6	6	39
One 6-11	10	1	3	39
Two+ 6-11	3	2	5	39
One Under 6	7	1	1	33
One 6-11, One Under 6	5	1	6	25
One Under 6, Two+ 6-11	11	6	6	34
Two+ Under 6	9	7	6	26
One 6-11, Two+ Under 6	4	0	0	33
Two+ 6-11, Two+ Under 6	4	4	6	32

Encouragement to Read

Those with higher levels of education are much more likely to report that their parents frequently encouraged them to read books, both before and after MCA control. Women, young adults, and those of "other" races are also more likely to recall that their parents often encouraged them to read. After adjustment for other background variables, differences by occupation and income factors are quite small, indicating that other factors (most likely education) account for a considerable portion of the initial differences.

D) DIMENSIONS OF ART SOCIALIZATION EXPERIENCES

Socialization experiences tend to cluster into distinct patterns. That is, certain socialization experiences can be predicted if other experiences are known. A factor analysis of socialization experiences of the SPA'82 data, shown in Table 7.5, revealed two such dimensions; the third dimension in Table 7.5 is less interesting for our present analyses since it simply clusters the educational levels of respondents' parents rather than any direct arts socialization experiences.

The variables encompassed by these two dimensions can be read from Table 7.5 and visually examined in Figure 7.1. In Table 7.5, the variables which are highly correlated with the hypothetical factor are marked with an asterisk to help interpret each dimension. The same relationship can be seen in the diagram. Those variables which are correlated most strongly with the first and second factors are farther to the right on the horizontal axis, and farther up on the vertical axis, respectively.

The first dimension clusters most, but not all, of the questions on arts lessons or classes. The questions on music appreciation and art appreciation/history load highly on this factor, along with creative writing and visual arts lessons. Lessons or classes in arts/crafts, music, and acting also load on this cluster, but to a lesser extent. However, lessons in ballet, and the items on parent-mediated experiences, are not part of this cluster. Thus, this factor analysis suggests that persons who have had one type of arts lesson or class are also more likely to have had several other arts lessons or classes.

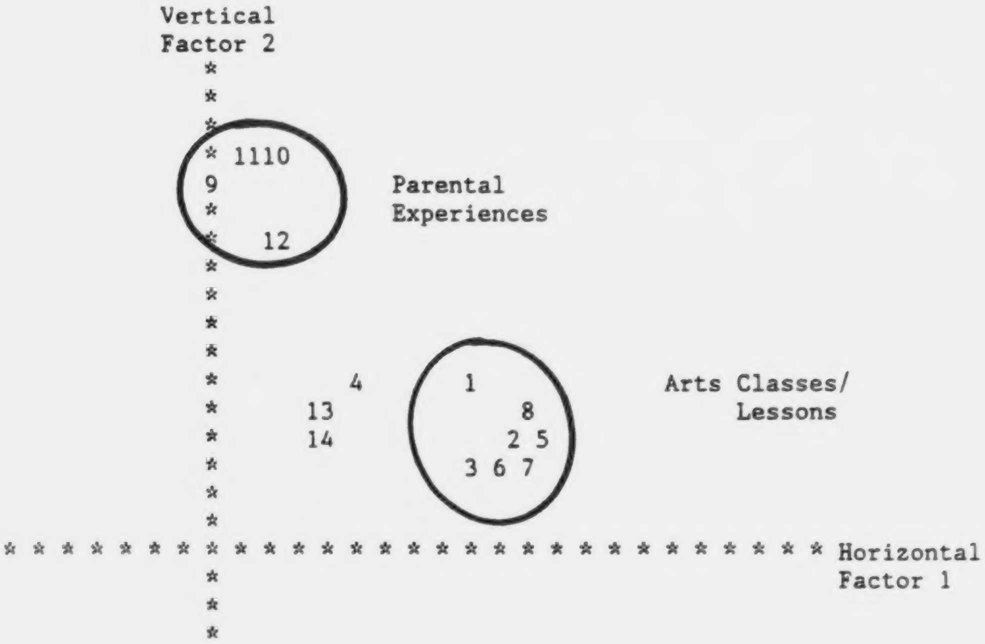
The second dimension clusters childhood socialization experiences in the arts that were provided by parents and other household members. Parental introduction to the arts either indirectly through listening to classical music or opera in the home, or by taking their children to art museums or to performances of plays, dance or classical music, load most highly on this dimension. To a lesser extent, parents' encouragement of reading for its own sake is also associated with this cluster. Thus, in terms of the types of arts socialization experiences provided by parents, respondents who had experienced one type of parent-mediated arts socialization also tended to have had others.

TABLE 7.5: Dimensions of Art Socialization Experiences: Varimax Rotated Factor Matrix

Description:	Factor 1 Arts Lessons	Factor 2 Parents	Factor 3 Education
Music Lessons	*.51	.31	.15
Visual Arts Lessons	*.68	.11	.13
Acting Lessons	*.51	.15	.08
Ballet Lessons	.28	.31	.11
Creative Writing Lessons	*.68	.13	.14
Arts/Crafts Lessons	*.56	.11	.09
Art Appreciation Lessons	*.71	.17	.08
Music Appreciation Lessons	*.66	.20	.06
Parents listened to music	.09	*.75	.12
Parents took to museums	.18	*.76	.16
Parents took to performances	.16	*.77	.11
Parents encouraged reading	.23	*.59	.15
Father's Education	.15	.22	*.73
Mother's Education	.20	.19	*.78

* Indicates variables within each factor.

Figure 7.1: Plot of First and Second Factors of Art Socialization Experiences



1=Music Lessons
2=Visual Arts Lessons
3=Acting Lessons
4=Ballet Lessons
5=Creative Writing Lessons
6=Arts/Crafts Lessons
7=Art Appreciation Lessons
8=Music Appreciation Lessons
9=Parents Listened to Music
10=Parents Took to Museums
11=Parents Took to Performances
12=Parents Encouraged Reading
13=Father's Education
13=Mother's Education

E) BACKGROUND DIFFERENCES IN ART SOCIALIZATION EXPERIENCES

People differ in the variety of art lessons and classes which they have taken, as well as in the variety of art forms to which they were exposed by parents and other members of the household. The question arises about whether differences in the number and range of these socialization experiences show a pattern in terms of a person's social background. For example, do persons of particular age or ethnic backgrounds tend to have been exposed to a range of such socialization experiences?

The factor analysis above suggests that art socialization experiences tend to form patterns organized either around parental attention or around arts lessons and classes. Thus, the following analysis addresses the question of social background variation in terms of only two indices: the first is based on the number of reported arts lessons and classes, and the second on the number of arts activities encouraged or introduced early in the respondent's home life. The data for this analysis can be examined in Table 7.6 and Table 7.7, the latter table presenting the figures after adjustment for other background variables.

Index of Arts Lessons and Classes

This scale is based on each respondent's reported experience in classes or lessons for eight types of art forms: music (voice or instrument), visual arts, acting or theater, ballet, creative writing, arts/crafts, art appreciation/history, and music appreciation. The national average, indicated by the grand mean of 1.8, is just under two types of classes or lessons. However, respondents with certain social characteristics fall considerably above and below this average.

Better educated persons, professionals, students, high income persons and younger adults, all report having experienced an average of three or more types of art classes and lessons.

After adjustment for the impact of the other factors in Table 7.7, the higher index scores for arts lessons and classes drop considerably within income, marital status and occupation groups. These factors, then, are better predictors than explanatory factors. However, some subgroups such as "other" race, men and older adults, remain low relative to the average after MCA control. Although the variation in range of classes predicted by education drops slightly as well, education clearly remains the strongest explanatory factor among the ten background factors in Table 7.7 and probably accounts for the lesser impact of other variables after adjustment.

Index of the Range of Arts Introduced or Encouraged in Childhood

This second scale is based on the number of types of arts experiences which parents and other household members provided while the respondents were growing up. The four types of arts experiences are listening to classical music or opera at home, going to art museums or galleries, attending performances of plays, dance or classical music, and, finally, encouragement of reading of literature.

Most of the factors show little variation from the average of 0.6 such arts experience provided by parents. However, the better-educated, professionals and more affluent are clearly more likely than average to have had such parental exposure.

When other factors are controlled, income and occupation lose much of their predictive ability, while education continues to be strongly associated with early arts introduction in the household. In addition to education, gender becomes one of the best explanatory factors for the range of

TABLE 7.6: Indices of Art Socialization Experiences by Selected Backgroud Factors

	Lessons & Classes	Parent-Mediated
Grand Mean:	1.8	0.6
Income:		
Under $5,000	1.1	0.3
$5,000 - $9,999	1.0	0.4
$10,000 - $14,999	1.7	0.5
$15,000 - $24,999	1.9	0.6
$25,000 - $49,999	2.2	0.6
$50,000 and over	2.6	0.7
Not ascertained	1.7	0.5
SMSA:		
Central city of SMSA	1.9	0.6
SMSA, not central city	2.0	0.6
Not in SMSA	1.5	0.4
Age:		
18-24	2.2	0.6
25-34	2.5	0.6
35-44	1.9	0.6
45-54	1.6	0.5
55-64	1.1	0.5
65-74	1.0	0.5
75-96	0.9	0.4
Marital Status:		
Married	1.7	0.5
Widowed	1.0	0.5
Divorced	2.0	0.6
Separated	1.7	0.5
Never Married	2.3	0.6
Race:		
White	1.9	0.6
Black	1.4	0.5
Other	1.5	0.8
Sex:		
Male	1.6	0.4
Female	2.0	0.7
Education:		
Grade school	0.1	0.1
Some High school	0.7	0.3
High school graduate	1.4	0.5
Some College	2.9	0.8
College graduate	3.3	1.0
Graduate school	3.7	0.9
Work Hours:		
None	1.5	0.5
1 to 29	2.4	0.6
30 to 39	1.8	0.5
40 hrs.	1.9	0.5
41 to 49	2.0	0.5
50 or more	2.2	0.6
Occupation:		
Professional	3.4	0.9
Managerial	2.3	0.8
Sales, Clerical	2.4	0.7
Craftsman	1.4	0.4
Operatives	1.0	0.3
Laborers	1.1	0.2
Service Workers	1.5	0.4
Not working	1.4	0.5
Keeping house	1.4	0.6
Student	3.0	0.8
Retired	1.2	0.5
Presence of Children:		
None	1.8	0.6
One 6-11	1.7	0.5
Two+ 6-11	1.7	0.5
One Under 6	2.0	0.5
One 6-11, One Under 6	1.6	0.3
One Under 6, Two+ 6-11	2.1	0.5
Two+ Under 6	2.1	0.5
One 6-11, Two+ Under 6	1.7	0.5
Two+ 6-11, Two+ Under 6	1.6	0.3

arts socialization experiences in childhood, with men reporting themselves below average with regard to parental-mediated introductions to the arts (as in the case of taking art lessons), while women tend to remain somewhat above average in Table 7.7. Gender differences remain the same after adjustment for other factors, indicating that other associated variables suppress the original relation.

TABLE 7.7: MCA-Adjusted Indices of Art Socialization Experiences by Selected Background Factors

	Lessons & Classes	Parent-Mediated
Grand Mean:	1.8	0.6
Income:		
Under $5,000	1.8	0.5
$5,000 - $9,999	1.6	0.5
$10,000 - $14,999	1.8	0.6
$15,000 - $24,999	1.9	0.6
$25,000 - $49,999	1.9	0.6
$50,000 and over	1.8	0.5
Not ascertained	1.8	0.5
SMSA:		
Central city of SMSA	1.9	0.6
SMSA, not central city	1.9	0.6
Not in SMSA	1.7	0.5
Age:		
18-24	2.3	0.6
25-34	2.4	0.6
35-44	1.8	0.6
45-54	1.5	0.5
55-64	1.3	0.6
65-74	1.2	0.6
75-96	1.2	0.4
Marital Status:		
Married	1.8	0.6
Widowed	1.9	0.7
Divorced	1.8	0.5
Separated	2.0	0.5
Never Married	1.7	0.5
Race:		
White	1.8	0.6
Black	1.7	0.6
Other	1.1	0.7
Sex:		
Male	1.6	0.4
Female	2.0	0.7
Education:		
Grade school	0.4	0.2
Some High school	0.8	0.3
High school graduate	1.3	0.5
Some College	2.7	0.8
College graduate	3.2	1.0
Graduate school	3.7	0.9
Work Hours:		
None	1.7	0.6
1 to 29	2.2	0.6
30 to 39	1.7	0.5
40 hrs.	1.8	0.5
41 to 49	1.9	0.5
50 or more	1.9	0.6
Occupation:		
Professional	1.8	0.6
Managerial	1.7	0.6
Sales, Clerical	1.8	0.5
Craftsman	1.7	0.6
Operatives	1.3	0.5
Laborers	1.6	0.5
Service Workers	1.6	0.5
Not working	1.9	0.5
Keeping house	1.9	0.6
Student	2.2	0.5
Retired	2.1	0.6
Presence of Children:		
None	1.9	0.6
One 6-11	1.6	0.5
Two+ 6-11	1.3	0.5
One Under 6	1.4	0.4
One 6-11, One Under 6	1.4	0.4
One Under 6, Two+ 6-11	1.5	0.6
Two+ Under 6	1.7	0.5
One 6-11, Two+ Under 6	1.0	0.3
Two+ 6-11, Two+ Under 6	2.1	0.5

F) ART SOCIALIZATION EXPERIENCES AND PARTICIPATING IN THE "CORE" ARTS

One consequence of art socialization experiences might be a greater tendency to participate in the arts as an adult. Possibly, the more critical factor for adult participation in the arts may be the cumulative effects of a greater range of art socialization experiences rather than a single type of experience. The following analysis examines each of these possibilities.

If art socialization experiences do influence arts participation by adults, we would expect a correlation between these two factors. That is, we should be able to predict greater adult participation in an art form from knowledge of the person's socialization in that type of art during childhood. For example, if a person often visited art museums as a child, and it is assumed that this leads to greater adult attendance at art museums, then we would expect a greater number of recent attendances at art museums among those recollecting childhood attendance. In addition, childhood socialization in other types of arts (e.g., music lessons) may also predict adult participation in attending art museums or other particular art forms.

Table 7.8 presents the correlations between arts socialization experiences and adult participation in the arts. (Correlations in the range of 0.40 and above will be referred to as strong; correlations of 0.30-0.39 as substantial; correlations of 0.20-0.29 as moderate.)

Jazz

Lessons or classes in the visual arts, creative writing or art appreciation and having parents who took them to performances are moderate predictors of attending jazz performances, although all art socialization ex-

TABLE 7.8: Correlations of Art Socialization Experiences and Adult Participation in the Core Arts: Pearson's r

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Music Lessons	.166	.243	.088	.205	.190	.135	.266	.288
Visual Art Lessons	.254	.239	.097	.203	.205	.162	.321	.266
Acting Lessons	.177	.202	.057	.187	.182	.134	.239	.196
Ballet Lessons	.134	.155	.034	.185	.169	.202	.186	.178
Creative Writing Lessons	.238	.258	.070	.199	.220	.187	.292	.290
Arts/Crafts Lessons	.157	.187	.064	.164	.176	.128	.226	.261
Art Appreciation Lessons	.214	.244	.062	.216	.226	.163	.351	.240
Music Appreciation Lessons	.196	.252	.101	.226	.226	.129	.287	.250
Parents Listened to Music	.180	.270	.121	.213	.194	.162	.307	.262
Parents Took to Museums	.196	.217	.105	.224	.209	.151	.290	.296
Parents Took to Performances	.221	.305	.131	.274	.242	.191	.308	.289
Parents Encouraged Reading	.175	.205	.095	.169	.161	.137	.253	.381
Mother's Education	.083	.077	.008	.051	.064	.055	.074	.028
Father's Education	.067	.066	.003	.056	.045	.006	.064	.041

periences are correlated (at least .13) with such attendance.

Classical Music

Having taken a lesson or class in music, creative writing or music appreciation, or having had parents who played classical music or opera at home or took them to performances are the strongest predictors of attending classical music performances as an adult. However, all factors, except ballet lessons and arts/crafts lessons are at least moderately related to attendance at classical music performances.

Opera

While each of the art socialization experiences is positively related to attending operas as an adult, none of the socialization experiences treated in this study provide more than a weak prediction of future attendance.

Musicals

Lessons and classes in music appreciation and having had parents who took their children to plays or museums are the highest of the moderately correlated arts socialization factors with attendance at musicals or operettas.

Plays

Art appreciation and music appreciation classes and having had parents who took them to plays as children are also the strongest correlates of the factors moderately associated with attending plays.

Ballet

Taking ballet classes as a child is the only moderate predictor of attending ballet performances as an adult.

Art Museums

Almost all art socialization experiences predict visits to art museums or galleries in the previous year. Predictors of more substantial strength include classes in visual arts and art appreciation and having parents who listened to music or took their children to stage performances. The mother's reported level of education is also a moderate predictor.

Reading

Parental encouragement of reading as a child is the strongest predictor of adult reading of literature. All other socialization experiences are of moderate strength, except having had acting or ballet classes which prove to be weak correlates of adult reading behavior.

In brief, art socialization experiences provide numerous moderate predictors and one strong predictor of adult participation in the arts, with the notable exception of opera, for which there are only weak predictors. Generally, classes and lessons (particularly those in art appreciation/history, music appreciation and creative writing) seem to have a greater influence on arts participation than early arts experiences mediated by parents.

G) INDICES OF SOCIALIZATION AND ARTS PARTICIPATION

We have seen that respondents who recall more of certain socialization experiences in early years are more likely to participate as adults in some of the arts. A wider number of such experiences might have a cumulative effect. In other words, those who have had a greater variety of art socialization experiences may be more active participants in the arts attending a wider range of arts events.

Table 7.9 shows the relationship between the Chapter 3 index of adult participation in the arts and the two indices of arts socialization experiences (lessons/class and parental guidance) examined in this chapter; in addition, the education level of the respondent's mother is included as well. The arts participation index represents a count of the variety of the seven arts events attended in the previous 12 months, with an average of 0.8 (out of a possible score of 7). Similarly, the arts education index is a count of the types of classes or lessons taken among eight categories--music, visual arts, theatre, ballet, creative writing, arts/crafts, art appreciation/history and music appreciation. The parent-mediated index is a count of four types of arts experiences mediated by parents (or other household members): listening to classical music or opera at home; going to art museums or galleries; going to plays, dances, or classical music; and encouraging the reading of books.*

Finally, assuming that mothers with varying education levels provide different types of arts socialization experiences not directly measured by the four categories of parent-mediated questions, the independent relationship between the respondent's mother's educational level and the adult participation index is also examined in Table 7.9.

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*In no sense does the construction of these indices imply that any one socialization experience is equivalent to, or substitutable for, another socialization experience. They simply facilitate any examination of the range of respondents' early arts socialization experiences.

TABLE 7.9: Arts Participation Indices by Number of Socialization Experiences and Mother's Education: Number of Types of Arts Activities Attended

	Arts Participation Index	
	Unadjusted	Adjusted
Grand Mean:	0.8	0.8
Number of Lessons		
0	0.3	0.4
1	0.6	0.6
2	0.8	0.8
3	1.1	1.1
4	1.5	1.5
5	1.9	1.8
6	2.2	2.0
7	2.9	2.6
8	3.6	3.1
Number of Parent-Mediated Experiences		
0	0.6	0.8
1	1.0	0.9
2	1.8	1.4
3	2.3	1.8
4	2.9	2.1
Mother's Education		
11th grade or less	0.3	0.7
High school graduate	0.7	0.9
Some college	0.7	0.9
College graduate	1.4	1.1
Do not know	1.8	1.3

Examination of the first column of Table 7.9 suggests that each of these three variables has a positive relationship with attending a broader range of arts events. In other words, a greater attendance of various arts performances can be predicted among people who have had a wider range of art lessons/classes, more types of parental introduction to the arts, or a mother with a higher level of education. The index of art classes or lessons is, however, a stronger predictor of broader adult arts participation than is the index of parental exposure or the mother's educational level.

The second column of Table 7.9 presents the same relationships after MCA adjustment for the influence of these three socialization variables and several associated background variables (e.g., education, age). Comparison of the variations predicted by the two socialization indices and mother's education, before and after adjustment, suggests the degree to which the variations stand on their own or can be attributable to the influence of other factors. In each case, the range of variation drops considerably after adjustment, indicating that other factors account for a large part of the differences in rates predicted by these three socialization factors. However, the basic relationships remain unchanged: the index of art classes/lessons remains a relatively strong explanatory factor for attending a range of arts events, whereas the index for parental exposure and mother's education are less important as explanatory factors, with less than half as much difference between high and low groups as is found for taking classes or lessons.

SUMMARY

The extent of the public's early experience with, or socialization into, the arts varies considerably across art form. Almost one out of two American adults has at sometime had a class or lesson in a musical instrument or voice, while less than one out of ten has had a class in ballet. Approximately two-thirds of the adult population report that their parents never: 1) took them to art museums, 2) took them to plays, dance performances or classical music concerts, or 3) listened to classical music or opera at home. However, two-thirds do recall that their parents encouraged them (often or occasionally) to read books.

Marked differences in arts socialization experiences are observed among adults with varying social characteristics. Adults with higher levels of education are more likely to have been exposed to almost every type of socialization experience. In addition, there are certain differences by age, gender and race evident in the rates of reported experiences. These results suggest higher arts socialization among younger adults, among women and among students. Income and occupational differences seem largely to be explained by the related factor of education.

Arts socialization experiences tend to be clustered into two types. First, respondents who grew up in families that more frequently went to art museums, for example, were also more likely to be exposed to other art forms and were also more likely to have been encouraged to read books by their parents. The second cluster grouped those respondents who had taken some types of art classes or lessons, who were likely to have taken others types of lessons as well. Respondents of certain social backgrounds were more likely to have had either parental guidance or classes in a variety of the arts. Once again, better-educated adults tend to report a broader range of both sets of experiences.

In comparison to the experiences mediated by one's family, formal instruction through an art class or lesson tends to be a better predictor of adult participation in the arts. Nevertheless, the highest correlation between a socialization factor and a core arts variable is for family encouragement of reading books. Parental education is also an important factor, independent of direct socialization experiences. As in previous chapters, then, a wider range of art socialization experiences (particularly in classes or lessons) is also associated with wider arts participation among adults.

Chapter 8

PUBLIC INTEREST IN INCREASED ARTS PARTICIPATION

Attendance at arts events and performances is not the only reflection of interest in the arts. Many people who are interested in the arts may be discouraged from attendance, or actually be unable to attend because of certain obstacles or barriers. These barriers, for example, may include unavailability of transportation or tickets, as well as cost factors. Presumably, if some of these barriers could be eliminated or lessened, then audiences for the arts could be expanded considerably.

In earlier chapters we have implicitly described certain obstacles to attendance by describing differential participation in the arts among people with different social backgrounds. For example, in most cases, low educational achievement and lower income are associated with lower participation in the arts. On the other hand, having less free time (due to long work hours or more children to care for) is not generally associated with lower participation. In this chapter, we approach the issue of barriers to participation from the respondent's viewpoint, focusing on obstacles as perceived by the respondent.

This chapter discusses the barrier questions and the tabulations of the respondents' answers, aggregated for the June survey in which these questions were included in SPA'85. These tabulations are then analyzed to answer the following questions:

1) How widespread is the adult public's interest in attending more arts events?

2) Among those who are interested in attending more often, which factors are perceived as the chief obstacles or barriers?

3) What kind of people are interested in attending more arts performances and events? Do they tend to share certain social characteristics? Do the same social factors that correlate with expressed interest continue to hold up after other factors are taken into account?

4) Does interest in attending specific arts events tend to group into clusters? For example, do respondents who wish to attend opera more frequently also want to attend more jazz or classical music performances?

5) In terms of background characteristics, what type of person manifests increased interest in participating in a broad range of art forms? Do the factors that predict increased interest hold up after other factors are taken into account?

6) Is there an association between interest in attending either a single or broad range of art forms and actual current attendance? That is, do people interested in participating in the arts actually attend more types of events?

TABLE 8.1: Basic Responses to Barrier Questions (N=2357)

		Column 1 — JAZZ	Column 2 — CLASSICAL	Column 3 — OPERAS	Column 4 — MUSICALS
13b.		**What are the reasons you did not attend JAZZ MUSIC PERFORMANCES more often? Any other reason?** *(Mark all that apply.)*	**What are the reasons you did not attend CLASSICAL MUSIC PERFORMANCES more often? Any other reason?** *(Mark all that apply.)*	**What are the reasons you did not attend OPERAS more often? Any other reason?** *(Mark all that apply.)*	**What are the reasons you did not attend MUSICAL PLAYS/ OPERETTAS more often? Any other reason?** *(Mark all that apply.)*
1	☐ Tickets sold out	8	9	2	10
2	☐ Cost	129	100	64	236
3	☐ Not available	98	66	30	117
4	☐ Feel uncomfortable	3	1	3	2
5	☐ Don't have anyone to go with	32	35	16	48
6	☐ Babysitter problems/Must care for children	38	33	15	53
7	☐ Problem related to a handicap	1	2	0	3
8	☐ Problem related to age/health	7	21	9	30
9	☐ Too far to go	56	66	42	126
10	☐ Transportation/Traffic/Parking problems	30	34	26	63
11	☐ Crime or fear of crime	13	10	8	24
12	☐ Poor quality/Not very good, etc.	10	3	1	21
13	☐ Prefer to watch TV	12	8	2	12
14	☐ Don't have time	211	175	72	283
15	☐ Procrastination/Lack of motivation	44	56	2	84
16	☐ Other — *Specify*	56	43	72	71
	TOTAL SAMPLE=	466	397	192	715

		Column 5 — NON-MUS. PLAYS	Column 6 — BALLET	Column 7 — ART GALLERIES	NOTES
13b.		**What are the reasons you did not attend NON-MUSICAL PLAYS more often? Any other reason?** *(Mark all that apply.)*	**What are the reasons you did not attend BALLET PERFORMANCES more often? Any other reason?** *(Mark all that apply.)*	**What are the reasons you did not attend ART GALLERIES/ART MUSEUMS more often? Any other reason?** *(Mark all that apply.)*	
1	☐ Tickets sold out	6	4	2	
2	☐ Cost	161	90	77	
3	☐ Not available	104	47	133	
4	☐ Feel uncomfortable	1	0	2	
5	☐ Don't have anyone to go with	35	36	38	
6	☐ Babysitter problems/Must care for children	45	27	34	
7	☐ Problem related to a handicap	3	2	8	
8	☐ Problem related to age/health	18	11	18	
9	☐ Too far to go	80	56	154	
10	☐ Transportation/Traffic/Parking problems	34	19	65	
11	☐ Crime or fear of crime	15	9	15	
12	☐ Poor quality/Not very good, etc.	17	7	10	
13	☐ Prefer to watch TV	3	6	11	
14	☐ Don't have time	235	120	338	
15	☐ Procrastination/Lack of motivation	73	32	101	
16	☐ Other — *Specify*	68	45	65	
	TOTAL SAMPLE=	563	301	727	

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A) BARRIER QUESTIONS AND RESPONSES

The barrier questions were designed to identify the extent of arts interest and the major factors that inhibit people from participating in the arts as much as they would like. Thus, the first question in this sequence inquired about respondents' interest in increased attendance at various art forms. For each respondent who reported an interest in greater attendance, the reasons for non-participation were solicited.

The interviewers then assigned codes to the respondents' open-ended answers to this follow-up question about reasons for not attending more often. The precoded categories included the following types of problems:

External -- Tickets unavailable or too expensive; arts events unavailable locally or too far away; transportation problems; babysitter problems

Personal -- Feel uncomfortable at performance; fear of crime; no companion; lack of time

Physical -- Handicapped; age; health

Aesthetic -- Poor quality of performance; prefer television

Motivation -- Procrastination

An "other" category was used if the response did not fit into one of the precoded categories. These survey questions are shown in Table 8.1.

Table 8.1 also indicates the number of respondents who reported an interest in attending more arts performances. For the first set of queries in question 13a, the column of figures represent the number of respondents who desired to attend more arts events. For example, of the 2,357 respondents asked the question, 466 said they would like to attend more jazz performances, and 727 said they would like to visit art galleries or museums more often. In total, 62% of respondents indicated an interest in greater attendance of at least one art form, leaving only 38% of respondents who said they were not interested in increasing their frequency of attendance or in attending at all.

As noted above, all respondents who indicated an interest in greater participation in an art form were asked why they did not attend more often. Columns 1-7 of follow-up question 13b in Table 8.1 show the percentage of respondents who identified each reason for not attending as much as they would like. Thus, of the 466 respondents wanting to attend more jazz performances, 8 (or 1.7%) cited "tickets being sold out," 129 (28%) cited "cost," and 98 (21%) reported "unavailability" as a reason for non-attendance. (Again the total within each column is larger than the number of respondents for each response since multiple answers were possible.)

Population Estimates of Interest in Increased Arts Participation

After weighting to ensure proportionate representation in the sample by age, gender and race to current Census Bureau figures, these numerical counts of responses to the questionnaire can be used to estimate the extent of interest in increased participation among the U.S. adult population. These estimates, both in percentages and in population estimates, are found in Table 8.2. In addition, for purposes of comparison, Table 8.2 includes the estimates of attendance at these arts performances (i.e., the core questions examined in Chapter 3).

It is apparent that a sizeable potential audience for the arts does exist. Roughly three respondents in 10 expressed an interest in attending musicals and art museums more often. While the potential audience with increased interest in the other arts is smaller, only opera falls below 10%

of the adult population; even that percentage translates into about 14 million American adults.

A comparison of those wanting to attend more often (first columns of Table 8.2) to those who actually attend (last columns of Table 8.2) is informative. In general, the most attended types of arts events are the most popular in terms of additional interest. However, a significantly larger number of people desire to attend each type of arts performance and event more often than have actually attended in the previous 12 months. Thus, one can see that two or three times as many people say they want to attend more ballet, non-musical theatre, jazz and opera performances than had actually attended in the previous year. For musical theatre, the ratio of those interested to those who had attended is about 1.7 to 1, while for attending art museums and galleries, the ratio is 1.3 to 1. It is lowest for classical music, with a ratio of less than 1.3 to 1.

Moreover, the proportion who want greater attendance also include many people who have recently attended, as we shall see.

TABLE 8.2: Population Estimates of Desire to Attend Arts Events More Often: Percentages and Numbers in U.S. Adult Population

	Interested in More Attendance		Actual Attendance in Last 12 Months	
	Percent*	Number (in millions)	Percent*	Number (in millions)
Jazz	19%	32	10%	16
Classical Music	16	28	13	22
Opera	8	14	3	5
Musicals	29	49	17	29
Plays	23	40	12	21
Ballet	12	21	4	7
Art Museums	31	52	22	38

* Column does not total 100% due to the interst in increased attendance of multiple art forms.

B) REASONS FOR NOT ATTENDING AS OFTEN AS INTERESTED

The distribution of perceived barriers to increased attendance, as shown in Table 8.3, is quite similar for each performing art form. The factors cited most often as obstacles for the performing arts are lack of time and cost. Other commonly perceived barriers include availability of tickets, distance and procrastination.

On the other hand, the perception of barriers for art museums is somewhat different. In this case, the most commonly cited problems are access factors: availability of art exhibits and distance from such facilities. Although the relative ranking of these barriers is higher than for the other arts, the rates are very similar. For example, 20% cite availability as a major barrier to art museum visits; this compares to a range of 15-22% citing this as an obstacle to attendance at the other art forms. However, there is a significant difference for art museums in the much lower reports of cost as a barrier to visiting art museums--13%--as compared to 27-37% for the performing art forms.

TABLE 8.3: Perceived Barriers to Attending Arts Performances Mentioned by Those Wanting to Attend Each Art Form More Often: Percentages Reporting Each Type of Barrier

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
N =	(5,397)	(4,599)	(2,373)	(8,214)	(6,647)	(3,517)	(8,675)
Tickets Sold Out	1.2	1.8	1.2	1.4	1.1	1.1	.1
Cost	30.4	26.6	37.3	33.0	28.5	31.6	12.8
Not Available	21.9	19.4	14.6	17.4	20.0	17.1	20.2
Feel Uncomfortable	.5	.5	1.8	.4	.1	0	.4
No One to Go With	6.6	8.0	5.9	6.1	6.2	11.0	5.0
Babysitter/Child Care Problem	10.4	9.4	8.5	8.5	8.2	11.0	5.4
Handicap	.2	.3	0	.4	.6	.9	1.0
Age/Health	1.0	5.2	4.7	4.3	3.2	4.1	2.2
Too Far to Go	13.0	18.9	22.6	17.1	15.3	19.0	21.4
Transportation/ Traffic	5.9	8.3	12.3	8.1	5.6	6.8	8.9
Crime	2.2	2.4	3.8	3.0	2.3	2.7	1.9
Poor Quality	2.3	.6	.5	2.5	2.6	1.9	1.2
Prefer to Watch TV	4.6	1.7	.9	2.5	.4	2.1	3.0
Don't Have Time	42.9	41.0	35.4	38.3	39.5	37.2	44.5
Procrastination/ No Motivation	8.7	12.5	.9	11.2	11.7	9.8	12.7
Other	11.4	10.6	35.4	9.6	10.7	13.7	8.4

Note: The columns do not total 100% because a respondent could give more than one answer. "Other" includes such reasons as lack of knowledge about events; don't go out at night; work-related; performance times; moved or in transit; and prefer other activities; but excludes "don't know."

Table 8.3a shows the same responses as in Table 8.3, separately for those who attended that type of arts performance and those who did not attend. In general, the proportions are higher for the attending group than for the non-attending group, because more of them wanted to attend more. But the patterns of response are quite similar in that lack of time and cost factors again tend to predominate for both attenders and non-attenders.

Again, the predominance of the "lack of time" response stands in marked contrast to the Chapter 3 findings showing no difference in the participation rates at these same arts events by people working longer hours and by people with more child care responsibilities -- both factors that primarily affect the amount of free time that people have. It suggests that arts promoters would do better to look for new audiences among those already attending rather than among those (larger) proportions of non-attenders.

The higher proportion of wanting to attend more among current attenders is again consistent with the findings in previous chapters regarding the higher attendance rates among those who are currently most active. That is, the more attendance in one type of activity, the more in other activities.

TABLE 8.3a: Proportion of Attendees and Non-Attendees Citing Various Barriers to Greater Attendance

	JAZZ		CLASSICAL MUSIC		OPERA		MUSICALS		PLAYS		BALLET		ART MUSEUMS	
	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees	Attendees	Non-Attendees
Tickets Sold Out	.7	.2	1.1	.2	.0	.1	2.2	.0	2.0	.1	.9	.1	.3	.0
Cost	14.3	5.0	10.0	3.6	14.7	2.7	19.4	7.5	17.9	5.2	12.1	3.6	5.7	3.5
Not Available	14.4	3.2	7.7	2.5	5.9	1.2	10.8	3.9	12.6	3.7	12.6	1.7	11.2	4.9
Feel Uncomfortable	.1	.4	.0	.1	.0	.2	.0	.1	.0	.0	0	0	.1	.1
No one to go with	5.2	.9	5.2	.7	2.4	.5	3.7	1.4	2.3	1.4	4.9	1.2	2.2	1.4
Babysitter/Child Care Problem	4.7	1.7	3.7	1.2	.0	.6	2.9	2.2	5.1	1.4	3.8	1.3	3.5	1.2
Handicap	.4	.0	1.1	.0	.0	.0	.5	.1	.7	.1	.0	.1	.5	.3
Age/Health	.5	.2	1.4	.8	.0	.4	2.1	1.1	1.9	.7	.8	.5	1.2	.6
Too Far to Go	8.8	1.8	4.8	2.8	6.7	1.8	9.6	4.3	8.2	3.2	6.1	2.2	13.7	4.6
Transportation/Traffic	4.6	.8	3.5	1.1	1.6	1.1	4.4	2.0	3.6	1.0	2.1	.7	3.7	2.5
Crime	2.2	.3	1.2	.3	1.3	.3	1.3	.8	2.5	.4	.0	.3	.6	.6
Poor Quality	3.2	.2	.8	.0	.0	.0	3.2	.4	3.6	.2	3.6	.1	.8	.3
Prefer to Watch TV	.0	1.0	.3	.3	.0	.1	.6	.8	.4	.1	1.3	.2	.2	1.1
Don't Have Time	23.9	6.8	23.7	4.4	19.2	2.6	29.3	7.7	24.6	7.4	20.5	4.0	27.8	9.6
Procrastination/No Motivation	5.1	1.5	7.6	1.3	0	.1	7.9	2.4	6.5	2.3	2.5	1.2	8.2	2.7
Other	4.9	2.0	4.5	1.3	19.2	2.6	5.7	2.2	6.9	2.0	7.0	1.5	5.4	1.8

C) DEMOGRAPHIC DIFFERENCES IN INCREASED INTEREST IN ARTS PARTICIPATION

The interest in attending more arts performances or exhibits differs among various demographic groups. Table 8.4 presents these basic differences by income, age, SMSA, and education. Table 8.5 shows the same associations for each factor after adjustment for other background factors. Unlike analyses in previous chapters, the MCA analyses in this section include the important variable of current attendance, and thus may result in a somewhat different pattern of results than for other non-core variables. More demographic predictors are analyzed in the Section E MCA's.

The major differences revealed by these analyses of demographic subgroups are as follows:

Jazz

Younger, more educated, and to a lesser extent, more affluent individuals, are generally more likely to express interest in attending more jazz performances. Those in more rural areas also express less interest, as do non-attenders of jazz performances. However, after adjustment, the highest income individuals (those in households earning $50,000 or more) are no more interested in attending more live jazz performances than are lower income groups.

Classical Music

The better educated and those who currently attend classical music performances are particularly likely to be interested in more classical music attendance. Those aged 25-44 and the most affluent also report greater desire to attend performances more often. When other factors are held constant, differences between income groups decrease, while it is the

TABLE 8.4: Demographic Characteristics of People Interested in Increased Arts Participation

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Total Sample:	19%	16%	8%	29%	23%	12%	31%
Age:							
18-24	24	11	5	24	22	14	34
25-34	29	19	7	30	27	15	34
35-44	23	23	9	34	32	15	35
45-54	15	14	7	34	27	9	28
55-64	12	14	9	36	20	10	29
65-74	9	15	10	29	13	12	26
75-96	1	17	12	20	14	9	18
Education:							
Grade school	4	7	2	7	4	5	12
Some high school	12	9	5	19	12	6	22
High school graduate	19	12	5	30	21	10	30
Some college	24	21	11	38	31	19	38
College graduate	30	30	14	43	40	20	42
Graduate school	31	40	17	48	50	25	47
Income:							
Under $5,000	14	6	6	19	14	11	24
$5,000 - $9,999	13	23	7	20	13	10	20
$10,000 - $14,999	19	25	6	24	16	9	37
$15,000 - $24,999	18	25	9	28	22	13	29
$25,000 - $49,999	22	32	9	37	32	14	38
$50,000 and above	30	34	10	49	52	22	46
Not ascertained	17	22	7	30	17	10	26
SMSA:							
Central city of SMSA	23	16	8	27	21	15	32
SMSA, not central city	20	19	9	36	29	13	33
Not in SMSA	14	14	6	23	19	10	27
Attended Performance:							
No	16	12	7	23	19	11	23
Yes	57	47	38	63	59	55	58

oldest age group (over age 75) that shows the strongest level of interest in attending more often.

Opera

Better educated persons and, to a lesser extent, older and higher income individuals are more likely to want to attend more operas. When other factors are held constant, the impact of age and education is enhanced slightly, while the interest rate among people with over $50,000 annual family income becomes lower than average (perhaps because of the inclusion of the powerful predictors of education and current attendance).

Musicals

Better educated, middle aged, suburban and higher income persons are particularly likely to want to attend musical plays or operettas more often. Much of the higher rate of demand among suburbanites and the high income group, and the lower rate among the older age groups does not hold up after the impact of other background factors is controlled -- most likely due to the factor of education, which is associated positively with income and negatively with age and current attendance.

Plays

The desire to attend plays more often tends to be greater among the more educated, suburbanites, the more affluent and those aged 25-54. Much of the variation by income, urbanicity and age is a result of the influence of associated variables, again probably education and current attendance.

TABLE 8.5: MCA-Adjusted Demographic Characteristics of People Interested in Increased Arts Participation

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Total Sample:	19%	16%	8%	29%	23%	12%	31%
Age:							
18-24	22	12	4	24	21	13	33
25-34	26	18	5	28	25	13	33
35-44	22	20	8	29	28	13	31
45-54	15	13	7	33	26	10	27
55-64	15	16	11	39	23	12	32
65-74	14	17	13	34	19	14	31
75-96	7	22	15	31	22	12	26
Education:							
Grade school	12	11	0	11	12	7	20
Some high school	15	12	5	23	17	7	28
High school graduate	19	14	6	31	23	10	32
Some college	22	20	12	38	30	19	36
College graduate	26	25	14	37	33	18	33
Graduate school	24	29	17	37	35	20	35
Income:							
Under $5,000	19	10	8	29	20	13	29
$5,000 - $9,999	18	16	9	29	21	14	28
$10,000 - $14,999	23	17	7	27	20	11	31
$15,000 - $24,999	19	17	10	29	23	13	30
$25,000 - $49,999	20	18	8	33	28	13	35
$50,000 and above	19	23	4	34	37	14	33
Not ascertained	18	12	7	30	18	11	27
SMSA:							
Central city of SMSA	23	16	8	28	21	14	33
SMSA, not central city	20	17	9	33	27	13	31
Not in SMSA	16	16	6	28	22	11	30
Attended Performance:							
No	16	13	7	24	21	11	24
Yes	52	41	35	58	51	50	55

Ballet

People desiring to attend ballet more frequently are found disproportionately among current attenders, the more educated, younger and the high income groups. When other factors are controlled, younger individuals no longer express greater interest in attending more frequently, while the highest income group is also no more likely than average to express such an interest in ballet. Education remains the major explanatory factor for this interest after adjustment.

Art Museums

The desire to visit art galleries or museums more frequently is most common among current attenders, those with higher education, those with higher income and those in the 18-44 age group. However, most of the difference in increased attendance by income and age is attributable to the influence of education and current attendance.

D) DIMENSIONS OF INTEREST IN INCREASED ARTS PARTICIPATION

The results of the factor analysis that was performed on the SPA'82 data are presented in Table 8.6. They did not reveal separate dimensions or clusters of interests in greater attendance at arts events. Rather, most of the arts events were interrelated in terms of interest in greater participation. While interest in increased attendance at live jazz performances notably did not correlate as well on this dimension as did interest in the other six art forms, it correlated more highly on this factor than on any separate factor.

TABLE 8.6: Dimension of Interest in Increased Arts Participation: Results of Factor Matrix Using Principal Factor with Iterations

	Factor 1
Jazz	.43
Classical Music	.65
Opera	.59
Musicals	.60
Plays	.61
Ballet	.66
Art Museums	.54

E) BACKGROUND DIFFERENCES IN THE RANGE OF INTERESTS IN INCREASED ARTS PARTICIPATION

Respondents with certain background characteristics are more likely than others to be interested in a wider range of arts participation. This analysis is based on an index of the number of arts events (jazz, classical music, operas, musicals, plays, ballets and art museums) which respondents indicated they would like to attend more often. Scores on this index of increased interest thus range from 0 (interest in none) to 7 (interest in all seven).

Table 8.7-8.8 first shows these data for people with different background characteristics. The second column of Table 8.7-8.8 shows the same associations (between different categories of individuals and overall interest in greater attendance) for each background factor, after the influence of the other factors has been statistically controlled.

From the first column of Table 8.7-8.8, it is evident that the better educated, the more affluent and professionals/managers are more interested than average in a wider range of arts attendance. Higher interest is also evident among women, suburbanites and people aged 25-44. In general, those groups who actually attend a wider range of arts events (see Table 8.4) are also more likely to express a desire to attend a range of events more often. In other words, recent participation in a wide range of art forms is associated with even greater demand. The main exception is in the low interest among those in the "other" race group, who indicated higher than average attendance at arts events in Chapter 3.

When other background factors are controlled in Table 8.7-8.8, a considerable portion of the variation among some of these sub-groups disappears. However, education remains the strongest explanatory factor, prob-

TABLE 8.7-8.8: Index of Interest in Increased Arts Participation by Background Factors

	Unadjusted	Adjusted
Grand Mean on Interest Index:*	1.4	1.4
Income		
Under $5,000	1.0	1.2
$5,000 - $9,999	1.0	1.3
$10,000 - $14,999	1.2	1.3
$15,000 - $24,999	1.3	1.4
$25,000 - $49,999	1.7	1.6
$50,000 and above	2.4	1.8
Not ascertained	1.2	1.3
SMSA:		
Central city of SMSA	1.4	1.5
SMSA, not central city	1.6	1.5
Not in SMSA	1.1	1.2
Age:		
18-24	1.3	1.4
25-34	1.6	1.5
35-44	1.7	1.5
45-54	1.4	1.4
55-64	1.3	1.5
65-74	1.2	1.4
75-96	0.9	1.3
Marital Status:		
Married	1.4	1.4
Widowed	1.1	1.3
Divorced	1.7	1.6
Separated	1.4	1.6
Never married	1.5	1.5
Race:		
White	1.5	1.5
Black	1.1	1.2
Other	0.8	0.8
Sex:		
Male	1.2	1.2
Female	1.6	1.6
Education:		
Grade school	0.4	0.6
Some high school	0.8	0.9
High school graduate	1.3	1.3
Some college	1.8	1.8
College graduate	2.2	2.1
Graduate school	2.6	2.3
Work Hours:		
None	1.3	1.5
1 to 29	1.6	1.4
30 to 39	1.5	1.3
40 hrs.	1.3	1.3
41 to 49	1.6	1.6
50 or more	1.7	1.5
Occupation:		
Professional	2.5	1.8
Managerial	1.9	1.5
Sales, Clerical	1.7	1.5
Craftsman	1.0	1.3
Operatives	0.9	1.1
Laborers	1.0	1.3
Service workers	1.4	1.5
Not working	1.2	1.4
Keeping house	1.4	1.4
Student	1.5	1.4
Retired	1.0	1.4
Presence of Children:		
No children	1.4	1.4
One 6-11	1.2	1.5
Two+ 6-11	1.4	1.2
One under 6	1.3	1.2
One 6-11, One under 6	1.9	1.7
One under 6, Two+ 6-11	1.3	1.3
Two+ under 6	1.5	1.4
One 6-11, Two+ under 6	1.0	1.4
Two + 6-11, Two+ under 6	2.1	1.9

* Index is based on a count of the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven arts activities).

ably accounting for much of the initial variation by age, income and occupation. Nonetheless, professionals, those with $50,000+ annual family income and women express above average interest after control, and those of other races below average interest.

F) PARTICIPATION IN THE ARTS AND INTERESTS IN INCREASED PARTICIPATION

The relationship between interest and attendance can be interpreted in either of two ways, depending on which variable is considered primary. Does increased interest lead to greater arts attendance, or does greater attendance further stimulate interest in participating? Since it is likely that there is a reciprocal effect, both questions can be answered in the affirmative. Table 8.9 presents the correlations between the desire to attend more arts events and actual attendance. (Correlations of 0.40-0.49 will be referred to as strong; correlations of 0.30-0.39 as substantial; correlations of 0.20-0.29 as moderate.)

The correlations are all positive, with the best predictor of actual attendance at a particular arts event being the expressed interest in attending that type of event more often. For example, while desire to attend ballet more often is associated (.262) with attending ballet performances, it is only weakly associated with attendance at other types of arts events (like jazz and opera). Similarly, interest in attending more jazz performances is substantially correlated (.307) with actually attending jazz performances. Interests in attending musical theatre, classical music performances, plays, ballet or art museums/galleries are all substantially or moderately associated with a greater likelihood of actual attendance at each of these events, respectively.*

---

* The smaller correlations for opera and ballet in Table 8.9 are not reinforced by an examination of odds ratios for these data. The order from odds ratio calculations is:

Ballet	9.9		
Opera	8.2	Musicals	6.1
Jazz	7.2	Plays	5.3
Classical Music	6.3	Art Museums	4.6

Some interest and attendance patterns cross arts events. For example, interest in greater classical music attendance is moderately related to recent visits to art museums and to reading literature. Similarly, interest in attending more plays and musicals shows a moderate association with attendance at art museums and reading literature.

Thus, actual attendance at arts events is associated with heightened interest in attending not only that type of event, but often with attending other types of arts events as well. However, it is possible that those wanting to participate would attend more often, were it not for the perceived barriers to attendance described in Section B.

Table 8.9 also shows positive correlations across art forms. That is, wanting to attend one type of arts event is positively associated with actual attendance at all other types of arts events. We can determine, then, how much more individuals with varying interests in attending a greater range of arts events may actually participate. In other words, how well does the number of art forms a respondent is interested in attending predict attendance in the arts?

Tables 8.10 and 8.11 present the data relevant to this relationship. Table 8.10 shows the proportions of attenders of each art form across the index of interest in increased participation (in terms of deviation from the grand mean). Table 8.11 shows the same relationships after holding constant the 11 background variables of income, age, SMSA, region, race/ethnicity, gender, occupation, number of children, marital status, education and number of work hours per week. The Table 8.11 data, then, indicate how well these background variables explain the associations found in Table 8.10.

Table 8.10 shows a clear association between interest in increased

TABLE 8.9: Correlations Between Interest in Increased Participation and Actual Participation (Pearson's r)

	Interested in More					
	Jazz	Classical Music	Opera	Musicals	Plays	Ballet
Jazz	(.280)	.101	.074	.074	.174	.081
Classical Music	.118	(.288)	.186	.193	.176	.188
Opera	.062	.087	(.168)	.057	.074	.072
Musicals	.025	.117	.111	(.273)	.240	.136
Plays	.121	.129	.163	.195	(.260)	.141
Ballet	.079	.123	.122	.144	.116	(.245)
Art Museums	.183	.239	.183	.224	.266	.223
Reading*	.982	.225	.152	.256	.285	.193

* No data collected on interest in increased reading.

participation and actual attendance at arts events. Generally, the higher the score on the interest index, the greater the actual attendance. This also holds true for the general index of arts participation shown in the last column of Tables 8.10 and 8.11. However, several of these associations for particular art forms are not perfectly linear, since those highest in interest (index score=7) do not always show the most frequent attendance -- at a given art form. For example, in Table 8.10 of those expressing interest in four or five art forms, only 16-18% went to jazz performances, as compared to 21% among those interested in three art forms.

When background factors are held constant in Table 8.11, the relationships tend to be weaker but the overall non-linear pattern persists. Increased interest for many art forms predicts more attendance, then, but only up to a point; beyond that point, the more interest, the lower the participation. These may be people who are really constrained in their ability to attend arts events. While the index scores in the final column of Table 8.10 do show that these non-linearities may cancel out across many art forms, those with interest in five art forms do participate less than those expressing interest in four art forms in the MCA-controlled entries in Table 8.11.

We can conclude that background variables such as age, education and income explain some of the observed association between desire to attend and actual attendance, but most of it remains after MCA control. And the relation extends as well to reading literature, as shown in the second-to-last column of (parenthesized) figures in Tables 8.10 and 8.11.

Here, it can be seen in Table 8.10 that among those with no interest in attending any arts performance, the rate of reading literature is only 28% compared to 58% for those interested in attending one type of arts per-

TABLE 8.10: Arts Participation Rate by Interest Index Score

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Museums	(Reading)	Arts Participation Index
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	(56%)	0.8
Interest Index Score:*									
0	2	2	1	4	2	1	4	(28)	0.2
1	8	9	3	17	9	3	18	(58)	0.7
2	12	18	2	25	17	4	37	(77)	1.1
3	21	27	5	31	23	10	41	(78)	1.6
4	18	34	7	41	31	9	59	(81)	2.0
5	16	44	4	41	28	13	53	(83)	2.0
6	33	44	5	37	36	21	63	(84)	2.4
7	32	37	20	32	42	37	60	(89)	2.6

* Interest Index is based on the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven arts activities).

formance, and up to 89% for those interested in attending all seven art forms. After MCA control for demographic factors, the rate for those not interested in any arts performance increases to 34%; while the rate of reading literature decreases to 80% for those interested in all seven art forms. Nonetheless, the extension of the principle to a separate art form remains quite clear.

TABLE 8.11: MCA-Adjusted Arts Participation Rate by Interest Index Score

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Museums	(Reading)	Arts Participation Index
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	(56%)	0.8
Interest Index Score:*									
0	4	5	2	9	5	2	9	(34)	0.4
1	7	10	3	18	9	3	18	(58)	0.7
2	11	16	1	22	15	3	34	(71)	1.0
3	18	23	3	25	18	8	34	(72)	1.3
4	15	28	5	35	25	6	52	(71)	1.7
5	13	38	3	33	21	10	44	(75)	1.6
6	28	39	3	30	30	19	54	(77)	2.0
7	31	36	19	28	40	36	56	(80)	2.5

* The factors held constant are: income, age, SMSA, region, race, gender, occupation, number of children, marital status, education and number of work hours per week.

** Interest Index is based on the number of arts events respondents indicate they would like to attend more often; scores range from 0 (interest in none) to 7 (interest in all seven arts activities).

SUMMARY

In this chapter, we have analyzed the association between interest in attending arts events more frequently and perceived obstacles to such attendance. Several main conclusions have emerged.

First, a sizeable potential audience does exist -- roughly twice the size of the present audience for each art form. Second, lack of time and cost of admission are the reasons cited most often as obstacles to attendance at arts performances; however, the major barriers to visiting art museums and galleries appear to be time, availability and distance.

In terms of background characteristics, the better educated, professionals and more affluent express greater interest in increased arts participation. Education again emerges as the most important factor after MCA control. There are also differences among age, race and gender sub-groups for certain art forms.

Factor analysis identifies a single dimension of art forms (classical music, ballet, musicals, plays, opera and museum attendance) in terms of interest in attending more often. Typically, interest in greater attendance at one of these art forms is related to actual attendance of that art form, in terms of both correlations and odds ratios. However, there is some association as well between interest in one form and attendance at a different art form.

Finally, the broader and greater the range of increased interests, the greater the likelihood of attending almost all of the art forms. However, people who express a greater range of interests in increased participation across some art forms sometimes attend less than those more in the middle of the interest index.

Chapter 9

MUSIC PREFERENCES AND ARTS ATTENDANCE

Preferences for certain types of music are a reflection of one's general cultural orientation. As such, we should expect interesting relationships between arts participation and music preferences. Indeed, the set of SPA "core" questions in Chapter 3 included several questions on attendance at live musical performances. However, the core questions are not the only indicators of music preferences for two reasons: first, they only cover four types of music (jazz, classical, opera and musicals); second, they concentrate on attendance at live performances. To measure music preferences more comprehensively, therefore, a series of direct questions asked respondents what types of music they liked to listen to and which they liked best.

This chapter presents these music preference questions and the distribution of responses to them. Further analysis of this information addresses the following questions:

1) What are the most liked types of music? The size of the population who likes each type of music can be estimated from the distribution of responses in the sample.

2) How do musical tastes differ among groups with different backgrounds? For example, are men more likely than women to prefer country-western music? Are the best correlates of musical tastes also the best explanatory factors?

3) Along what dimensions do music preferences tend to cluster? For example, do people who enjoy listening to jazz or rock music also tend to enjoy certain other types of music?

4) Do people of certain social backgrounds like a broader range of music? For example, are persons

of certain backgrounds more likely to prefer classical music or opera, etc.?

5) Are music preferences useful predictors of attendance at arts performances?

6) Do people who enjoy more types of music, or more varieties of a single dimension or type of music, also tend to attend arts performances?

A) MUSIC PREFERENCE QUESTIONS AND RESPONSES

The music preference questions covered the 13 types of music listed in Table 9.1. Respondents were first asked if they enjoyed listening to each of these types of music, and then to specify additional types they liked to listen to. Respondents were then asked to choose the music they most preferred among those that they liked (if they indicated more than one type of music preference). This second question thus provides an indicator of the most enthusiastic preferences for each type of music.

The responses of the 2,151 respondents who answered these questions can be found in Table 9.1. The first column of figures shows the number of respondents who said they liked to listen to each type of music. Respondents could give multiple responses; for instance, 1,143 of the 2,151 respondents said they enjoyed listening to country-western music and 331 said they liked barbershop. The second column of figures gives the numbers of respondents who not only liked that type of music, but who also said they liked it better than any other type of music. Country-western music, for example, was the favorite listening music for 415 of those 1,143 respondents who said they liked it at all.

TABLE 9.1: Music Preference Questions

22a. Read –

► *FOR PERSONAL INTERVIEW*

Please look at the types of music listed on this card. *(Hand respondent flashcard LAS-12.)* **Which of these types of music do you like to listen to? Any other type?** *(Mark all that apply.)*

► *FOR TELEPHONE INTERVIEW*

I'm going to read you a list of some types of music. As I read the list, tell me which of these types of music you like to listen to? *(Read categories from flashcard LAS-12.)* **Any other type?** *(Mark all that apply.)* (N=2151)

1	☐ Classical/Chamber music	685	162
2	☐ Opera	237	12
3	☐ Operetta/Broadway musicals/Show tunes	548	38
4	☐ Jazz	678	84
5	☐ Soul/Blues/Rhythm and blues	668	98
6	☐ Big band	714	133
7	☐ Country-western	1143	415
8	☐ Bluegrass	530	18
9	☐ Rock	870	346
10	☐ Mood/Easy listening	1136	286
11	☐ Folk	548	25
12	☐ Barbershop	331	1
13	☐ Hymns/Gospel	846	203
14	☐ Other – *Specify* ______	94	61
15	☐ All	30	18
16	☐ None/Don't like to listen to music		

CHECK ITEM C

Is more than one type of music or "ALL" marked in 22a?

0	☐ No – *Skip to 23a*	363
1	☐ Yes	1720

22b. You mentioned you like to listen to *(Read categories marked in 22a).* **Which of these do you like best?** *(Enter category number.)*

__________ Category number

0 ☐ No one type best

Population Estimates of Music Preferences

After weighting the sample to ensure that it had Census-proportionate gender, race and age distributions, the responses to the music preference questions can be generalized as population estimates. The percentage estimates are shown in Table 9.2a and U.S. population projections in Table 9.2b. These estimates indicate, then, the portion and number of U.S. adults who say they enjoy, or enjoy best, each of the 13 types of music.

As can be ascertained from the tables, almost all American adults enjoy listening to at least one of these types of music. Most adults (82%), in fact, enjoy at least two types. Country-western and mood/easy listening music are by far the most popular choices, while about 40% say they like to listen to rock music, and hymns/gospel music, and up to a third like jazz, soul and big band music. Barbershop (15%) and opera (10%) are the least popular.

The rankings for best-liked music are very similar to those for liking in general. The rankings for type of music "liked best" are very similar to those for types of music "liked." Country-western, rock, easy listening, and hymns and gospel music are the most frequently cited favorites. On the other hand, despite the sizeable portions of the adult population who enjoy bluegrass, jazz and folk music, they are the main favorites of relatively few adults.

TABLE 9.2a: Music Preferences: Percentages Reporting Music Types They Like and Like Best

	Like	Like Best
Classical/Chamber	30%	7%
Opera	10	@
Operetta/Musical/Show Tunes	24	2
Jazz	32	4
Soul/Blues/Rhythm and Blues	33	6
Big Band	32	6
Country-Western	53	20
Bluegrass	24	1
Rock	42	17
Mood/Easy Listening	52	13
Folk	25	1
Barbershop	15	@
Hymns/Gospel	40	10
Others	5	3
Like all types mentioned	1	NA
More than one type	82	NA
No one type liked best	NA	9

@ Less than 0.5%
NA = Not Applicable

TABLE 9.2b: Population Estimates of Number of U.S. Adults (in millions) Reporting Music Types They Like and Like Best

	Like	Like Best
Classical/Chamber	52 million	12 million
Opera	18	1
Operetta/Musical/Show Tunes	41	3
Jazz	56	7
Soul/Blues/Rhythm and Blues	56	10
Big Band	55	10
Country-Western	91	34
Bluegrass	41	2
Rock	71	28
Mood/Easy Listening	88	22
Folk	43	2
Barbershop	25	1
Hymns/Gospel	69	18
Others	8	5
Like all types mentioned	2	NA
More than one type	140	NA
No one type liked best	NA	15

NA = Not Applicable

B) BACKGROUND DIFFERENCES IN MUSIC PREFERENCE

People belonging to various demographic sub-groups vary in how much more or less they prefer particular types of music. Table 9.3 presents music preferences by ten background variables. Table 9.4 shows the same data for each variable after controlling for the effects of other variables by MCA.

The major differences among sub-categories of these background variables are as follows:

Classical/Chamber Music

Listening to classical or chamber music is enjoyed particularly by the more educated, students, professionals and managers, the more affluent, SMSA residents, and whites and "other" races. When other factors are controlled, older people are also more likely than average to like classical or chamber music. Other factors account for most of the variation by occupation and income (except for the highest income group).

Opera

Enjoyment of opera is especially common among those with highest incomes, higher education, and white-collar occupations and among older age groups. Education and age are the main explanatory factors after MCA control.

Operettas/Musicals/Show Tunes

Those with higher incomes, more education, professionals/managers, whites, the middle aged, and women are more likely to enjoy listening to operettas, broadway musicals and show tunes. When the impact of other factors is statistically controlled, much of the variation by occupation and

LE 9.3: Music Preferences by Background Factors

	Classical/ Chamber	Opera	Operettas/ Musicals/ Show Tunes	Jazz	Soul/ Blues/ Rhythm and Blues	Big Band	Country-Western	Blue-grass	Rock	Mood/Easy Listening	Folk	Barber-Shop	Hymns Gospe
Grand Mean:	30%	10%	24%	30%	33%	32%	53%	24%	42%	52%	25%	15%	40%
Income:													
Under $5,000	30	7	13	31	30	20	36	14	47	39	14	8	36
$5,000 - $9,999	14	9	14	25	34	25	46	17	36	39	17	10	46
$10,000 - $14,999	23	10	18	24	25	29	61	27	34	41	24	18	42
$15,000 - $24,999	30	11	21	28	30	31	54	26	39	51	26	13	39
$25,000 - $$49,999	34	9	32	36	39	38	57	27	47	62	28	15	41
$50,000 and above	55	20	41	46	39	42	53	24	41	40	35	20	36
Not ascertained	26	10	22	29	28	32	53	21	35	51	24	18	37
SMSA:													
Cent city of SMSA	33	12	25	36	41	32	47	19	44	55	26	14	37
SMSA, not cent city	34	12	28	32	33	35	52	25	41	57	26	16	37
Not in SMSA	24	7	19	26	26	29	59	27	44	43	23	14	47
Age:													
18-24	26	6	17	39	41	19	42	21	83	47	16	5	23
25-34	29	6	21	40	47	21	51	25	69	52	23	6	35
35-44	33	8	26	32	36	31	61	28	42	59	32	12	41
45-54	31	15	32	29	27	43	58	24	15	57	26	17	45
55-64	32	15	29	27	23	82	58	23	9	50	29	29	50
65-74	34	18	21	23	18	44	55	28	7	45	26	28	55
75-96	27	14	23	12	6	35	45	13	2	40	19	24	56
Marital Status:													
Married	30	10	25	28	29	34	57	25	32	54	27	16	43
Widowed	24	11	17	13	10	34	54	14	7	39	19	19	52
Divorced	32	14	30	45	40	42	59	33	48	55	30	19	44
Separated	23	7	23	34	55	24	42	22	50	43	24	9	51
Never Married	34	9	23	45	47	24	42	22	74	50	20	8	27
ace:													
hite	32	11	26	30	29	33	57	27	43	53	27	16	38
lack	13	7	12	53	71	20	28	3	31	42	13	3	65
Other	34	4	16	26	15	36	30	6	52	52	17	0	27
Sex:													
Male	30	9	19	36	36	32	54	27	45	49	24	14	35
Female	31	12	28	28	30	32	53	21	37	54	24	15	46
Education:													
Grade school	11	5	6	11	17	17	53	20	16	26	14	12	47
Some High school	16	5	11	18	24	27	62	24	23	34	18	15	47
High school graduate	21	8	19	26	32	31	56	22	42	53	21	14	41
Some College	40	12	32	44	42	40	54	28	58	63	30	13	37
College graduate	53	19	42	45	39	39	41	27	46	65	32	17	37
Graduate school	68	26	49	34	40	42	43	26	47	63	46	22	33
Work Hours:													
None	28	12	22	25	26	31	52	21	29	46	23	17	45
1 to 29	32	9	30	33	29	32	56	21	54	62	23	15	40
30 to 39	33	9	25	27	38	31	50	18	46	52	23	14	36
40 hrs.	30	9	22	37	39	33	51	26	50	53	26	11	38
41 to 49	30	13	28	37	40	34	55	27	47	53	22	10	43
50 or more	38	9	28	44	41	34	61	34	51	60	35	16	33
Occupation:													
Professional	53	16	38	48	40	43	45	27	54	61	37	14	33
Managerial	46	19	39	46	38	43	54	31	39	68	36	21	37
Sales, Clerical	31	10	29	40	31	39	54	23	53	64	25	15	37
Craftsman	25	6	16	32	35	19	63	31	56	53	16	9	30
Operatives	17	4	10	26	33	23	55	19	47	39	25	7	44
Laborers	21	3	12	28	40	17	57	24	59	36	20	6	26
Service Workers	26	7	22	41	39	28	54	24	46	57	22	11	45
Not working	21	9	18	28	35	22	49	17	40	37	16	9	38
Keeping house	26	13	23	17	21	31	56	20	19	46	23	16	50
Student	41	9	20	51	49	22	46	21	84	51	24	8	25
Retired	29	11	23	21	14	46	51	30	4	45	28	33	52
Presence of Children:													
None	32	12	25	32	31	36	53	25	37	51	25	17	41
One 6-11	28	4	19	29	30	26	67	25	40	46	18	7	41
Two+ 6-11	32	5	28	27	45	36	59	33	46	59	36	22	42
ne Under 6	20	3	14	34	42	16	52	20	56	46	23	6	35
ne 6-11, One Under 6	25	8	25	33	44	10	49	21	61	68	25	1	38
One Under 6, Two+ 6-11	20	2	23	37	43	19	50	12	47	26	29	3	44
Two+ Under 6	32	6	23	31	34	17	41	23	66	62	28	10	32
One 6-11, Two+ Under 6	19	4	19	34	48	19	64	16	67	64	38	10	45
Two+ 6-11, Two+ Under 6	27	0	14	0	42	32	81	28	-1	46	0	0	47

income is reduced (probably due to the controls for education). Women and older individuals are even more likely to enjoy show tunes after these factors are controlled.

Jazz

Preference for listening to jazz music is found particularly among both lower and highest income levels, professional, student, higher education, non-married, young and black respondents. Much of the variation by income and occupation is attributable to the influence of education and other variables.

Soul/Blues/Rhythm and Blues

Enjoyment of soul music, blues, or rhythm and blues is notably higher among blacks -- 71% vs. 29% for whites and 15% for "other" races. Greater liking is also found to a lesser degree in the highest income brackets, among the young, students, professionals, city residents and the better educated. After MCA control, occupation is seriously reduced as a predictor of liking soul music.

Big Band

Older (but not the oldest) age groups, higher income groups, managers, the retired and college educated persons are more likely to express a preference for big band music. When the effects of other factors are held constant, older individuals are actually more likely than the average to enjoy listening to big band music, and the variations by income are considerably reduced. Education again remains the major explanatory variable.

Country-Western

Persons with middle incomes, who live in rural areas, are of middle

ABLE 9.4: MCA-Adjusted Music Preferences by Background Factors

	Classical/ Chamber	Opera	Operettas/ Musicals/ Show Tunes	Jazz	Soul/ Blues/ Rhythm and Blues	Big Band	Country-Western	Blue-grass	Rock	Mood/Easy Listening	Folk	Barber-Shop	Hymns Gospel
Grand Mean:	30%	10%	24%	32%	33%	32%	53%	24%	42%	52%	25%	15%	40%
Income:													
Under $5,000	36	10	18	29	25	28	39	18	41	47	20	11	34
$5,000 - $9,999	22	10	19	29	32	30	50	22	44	48	21	10	39
$10,000 - $14,999	28	11	23	31	31	31	58	26	41	45	26	17	39
$15,000 - $24,999	31	11	22	28	30	32	53	26	39	50	27	14	39
$25,000 - $$49,999	30	8	28	34	38	34	57	26	45	58	26	16	45
$50,000 and above	44	16	32	42	39	35	53	21	42	57	29	17	43
Not ascertained	24	10	21	29	30	29	52	10	38	50	22	16	38
SMSA:													
Cent city of SMSA	35	12	26	34	35	33	51	22	45	56	27	15	34
SMSA, not cent city	30	11	25	31	34	33	51	23	41	54	24	14	38
Not in SMSA	26	9	21	29	29	30	58	26	39	46	24	15	49
Age:													
18-24	20	3	13	34	37	16	44	22	77	60	16	4	25
25-34	25	4	17	36	42	20	56	28	71	47	21	5	31
35-44	27	5	24	26	34	26	59	27	42	54	29	11	40
45-54	31	14	32	28	25	40	37	23	16	56	26	17	44
55-64	38	18	34	32	28	52	54	20	11	55	31	30	51
65-74	47	25	32	36	28	52	52	25	12	59	31	31	57
75-96	42	21	28	27	21	48	41	13	5	58	26	32	62
Marital Status:													
Married	29	10	23	29	30	32	54	24	39	53	25	14	41
Widowed	23	4	15	27	27	28	61	19	44	45	22	8	35
Divorced	31	14	29	46	40	40	57	32	51	54	28	20	46
Separated	32	11	29	30	40	32	51	30	49	48	30	17	48
Never Married	35	12	28	37	40	31	47	21	46	51	24	16	38
Race:													
White	32	11	25	30	29	33	57	27	44	52	26	16	37
lack	18	12	17	57	70	26	30	5	27	47	16	7	70
ther	31	5	17	22	9	44	31	6	16	51	17	6	33
Sex:													
Male	28	9	18	35	35	32	54	26	45	47	25	13	35
Female	32	12	30	28	31	32	52	22	39	56	25	16	45
Education:													
Grade school	10	1	8	17	24	11	56	24	40	33	14	7	37
Some High school	16	1	9	20	28	24	60	25	37	36	17	11	39
High school graduate	22	10	19	27	31	32	55	22	42	53	22	15	41
Some College	41	14	33	41	39	44	55	27	46	63	32	16	42
College graduate	52	20	40	41	37	38	42	26	37	62	32	18	41
Graduate school	63	27	45	48	40	38	42	23	43	55	40	20	37
Work Hours:													
None	29	13	27	34	31	32	52	22	43	59	24	15	42
1 to 29	31	8	26	27	26	32	60	22	43	54	23	16	41
30 to 39	34	9	20	22	36	30	50	19	42	41	25	15	35
40 hrs	30	9	19	30	34	32	52	26	41	45	25	13	39
41 to 49	30	13	27	34	38	34	53	27	40	45	22	12	46
50 or more	32	6	23	34	38	31	59	30	39	51	29	16	40
Occupation:													
Professional	31	12	28	41	34	36	43	21	49	59	28	16	40
Managerial	30	12	28	30	29	40	51	20	41	58	24	16	40
Sales, Clerical	31	13	28	38	34	39	52	23	44	63	24	15	40
Craftsman	31	12	26	30	29	23	59	27	45	61	16	14	40
Operatives	28	14	22	27	27	27	58	16	42	53	29	10	50
Laborers	25	12	22	28	21	29	49	22	42	49	35	17	48
Service Workers	32	12	28	41	36	32	55	26	44	63	26	15	46
Not working	29	8	21	27	36	37	55	22	39	37	22	11	35
Keeping house	29	9	18	26	34	28	56	27	37	39	25	12	39
Student	35	7	18	30	39	29	67	27	44	47	29	17	42
Retired	27	1	23	23	29	31	50	31	32	42	28	20	42
Presence of Children:													
None	31	11	24	32	33	34	54	25	43	51	25	14	40
One 6-11	30	8	21	32	30	28	61	22	37	43	16	11	40
Two+ 6-11	37	11	31	29	42	44	52	29	37	58	35	27	41
One Under 6	23	7	19	29	32	24	53	19	33	46	25	14	41
One 6-11, One Under 6	28	13	30	32	38	18	46	17	42	69	26	9	43
e Under 6, Two+ 6-11	32	9	32	38	35	32	45	10	34	28	32	13	41
o+ Under 6	32	8	26	28	30	25	43	20	43	63	29	18	40
ne 6-11, Two+ Under 6	21	7	25	27	36	33	65	15	52	67	43	20	49
Two+ 6-11, Two+ Under 6	40	8	28	10	50	50	75	25	-21	60	5	12	54

age (aged 35-64), of less (but not least) education, with blue-collar jobs and whites are more likely to enjoy country-western music. When adjusted for other factors, the relationship between education and liking country-western music becomes negative in direction, one of the few variables in the SPA in which lower educated people give higher responses.

Bluegrass

Liking bluegrass is most prevalent among those with middle to higher incomes, suburban and rural residents, whites and males; on the other hand, a preference for bluegrass is much less common among blacks and "other" races. When other factors are held constant, only the greater preference for bluegrass by whites is maintained.

Rock

Enjoyment of rock music is strongly correlated with age -- adults under 25 (and students) are about ten times more likely than those over 55 to enjoy rock. The "some college" group, but not those who have graduated from college, are also noticeably more likely than average to like rock. Those who are not married (excluding the widowed), "other" races and men are also somewhat more likely to prefer rock music. After MCA control, age and marital status remain the best predictors.

Mood/Easy Listening

Better educated, higher (but not highest) income, white collar, middle aged (35-54), white and female respondents are more likely than the average to enjoy mood or easy listening music. Much of the variation by income and age is attributable to the influence of other factors after MCA control.

Folk

Folk music is appreciated most by those in higher income, higher education, white and middle-aged groups. When other factors are controlled, income, age and race variations decrease, with younger individuals generally less likely than older individuals to enjoy folk music.

Barbershop

People over the age of 55, the retired, those with household incomes over $50,000 and whites are most likely to enjoy barbershop music. When other factors are controlled, the variation predicted by income declines, but the variation by age and education increases.

Hymns/Gospel

Blacks, older persons, lower income individuals, the less educated, and women are more likely to say they enjoy listening to hymns or gospel music. After adjusting for the impact of other factors, education and income account for little variation in preference for this type of music.

In general, then, education and age are the main factors associated with liking these different types of music. Unlike the findings in previous chapters, age is as important a factor as education in responses to the music preference questions.

C) DIMENSIONS AND CLUSTERS OF MUSIC PREFERENCES

Since audiences for certain types of music also tend to enjoy certain characteristics of other types of music, it is likely that these music preferences cluster around certain basic dimensions. These dimensions summarize the ways people who prefer one type of music also prefer other types of music as well. Table 9.5 shows the three dimensions of music preference indicated by a factor analysis of the music preferences from the 1985 SPA. The highest correlations under each factor are noted with an asterisk to indicate clusterings of the basic music preferences (in terms of underlying hypothetical factors).

This factor analysis generated three dimensions of music preferences, with the first dimension including classical/chamber music, opera, operettas/musicals/show tunes, and big band music. Basically, this dimension clusters music having its roots in the more European classical tradition and requiring larger numbers of musicians.

The second dimension clusters country-western, bluegrass, and to a lesser extent, folk and barbershop music preferences. In contrast to the first dimension, this group derives from white American folk traditions and requires fewer musicians to perform.

Preferences for jazz, soul/blues/rhythm and blues, and rock music define the third dimension. This dimension represents types of music that have their roots in the folk traditions of black Americans and in which rhythm is a major feature.

In other words, people who enjoy a type of music belonging to each of these dimensions are more likely to enjoy the other music types on that dimension. Conversely, they are less likely to enjoy music belonging to the

TABLE 9.5: Dimensions of Music Preferences: Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
Classical/Chamber	*.69	-.05	.17
Opera	*.67	-.07	-.06
Operettas/Musicals/Show Tunes	*.74	.13	.08
Jazz	.36	.04	*.67
Soul/Blues/Rhythm and Blues	.19	.15	*.74
Big Band	*.58	.29	.05
Country-Western	-.15	*.73	.02
Bluegrass	.05	*.68	.26
Rock	-.14	-.08	*.75
Mood/Easy Listening	.46	.19	.19
Folk	.41	*.50	.21
Barbershop	.45	*.53	-.08
Hymns/Gospel	.22	.56	-.18

* Indicates variables that correlate most strongly with each factor.

other two dimensions. (The two main exceptions to this are for folk and barbershop music, which are at the fringes of both clusters 1 and 2.)

The three dimensions of music preference generated by this factor analysis are shown in Figure 9.1. Several interpretations of the dimensions that structure this space are possible.* The first (horizontal) dimension contrasts classical, opera and operetta/musicals/show tunes on the right, with country-western music on the left; this could reflect a "complex vs. simple" music structure distinction, except that other simple forms of music (folk, hymns/gospel, etc.) are not located on the left side of Figure 9.1. More appropriately, it is reflective of the social characteristics of the audience for these types of music, with the classical forms of music on the right preferred by older and better educated audiences -- while rock and country-western audiences are relatively younger and less educated. Both age and education factors, therefore, are involved within this dimension.

The second (vertical) dimension contrasts country-western and bluegrass music at the top with opera, rock, jazz and classical/chamber music farthest away, suggesting a rural-urban distinction. This is further supported by the contrast between folk and barbershop near the top, and soul/blues/rhythm and blues music and operetta/musicals/show tunes farther away.

The third dimension contrasts "upbeat" (rock, soul/blues/rhythm and blues and jazz) music from the rest. It suggests an age dimension.

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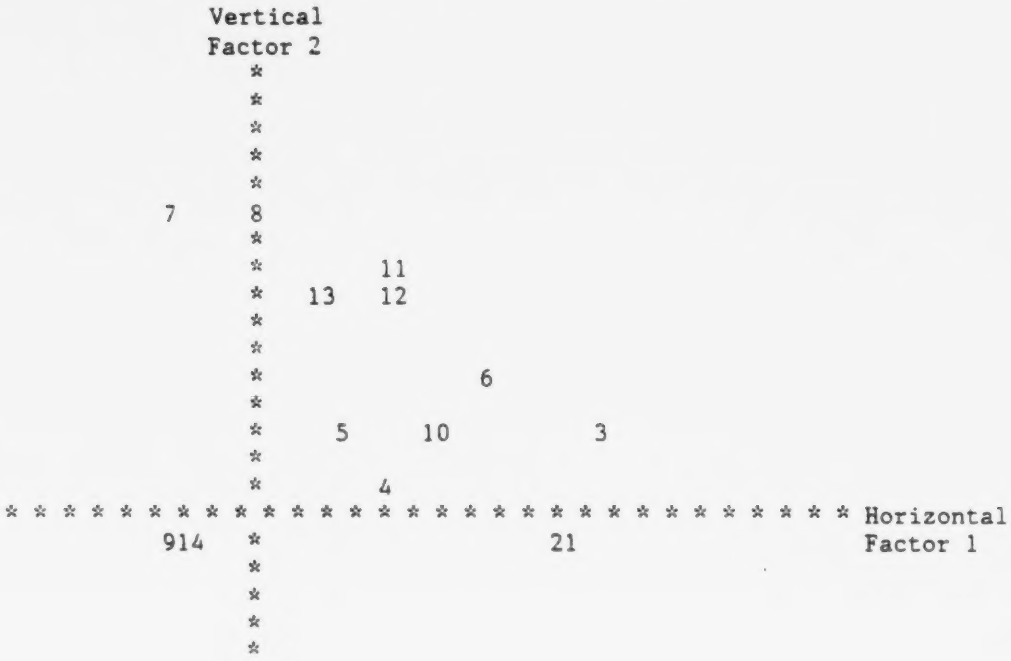
* As noted in Chapter 2, no information about the phenomenon under investigation is put into the factor analysis program; it simply generates the structure of the space from the numbers [correlations] fed into it.

Figure 9.1: Dimensional Portrayal of Music Preferences



1=Classical/Chamber
2=Opera
3=Operettas/Musicals/Show Tunes
4=Jazz
5=Soul/Blues/Rhythm and Blues
6=Big Band
7=Country-Western

8=Bluegrass
9=Rock
10=Mood/Easy Listening
11=Folk
12=Barbershop
13=Hymns/Gospel
14=Other

It is not necessary, however, to have the dimensions clearly labelled to gain insight into the structure of music preferences in Figure 9.1. One can also see the clustered patterns of the types of music, in terms of those forms of music that are close to each other spatially (such as bluegrass and country-western, soul/blues/rhythm and blues music and jazz; or classical/chamber music, operettas/musicals/show tunes and opera; or folk and barbershop). There are 78 pairings of music preferences possible from the Table 9.1 questions. The pattern of music preferences represented spatially in Figure 9.1 makes it possible to envision all 78 pairings in relation to each other in a single graphic portrayal.

More simplified dimensions were afforded by the Figure 9.2 multidimensional analysis which more fully utilized the ratio-scale properties of these preference data; these properties were reflected in a new distance measure of perceived (musical) similarity based on the odds ratio measures of liking types of music. While only two dimensions can be easily displayed in Figure 9.2, it is clear that the most basic distinctions in Table 9.5 are maintained: 1) classical, opera and showtunes vs. 2) country-western and bluegrass vs. 3) rock, soul/blues/rhythm and jazz.*

The analyses in Figures 9.1 and 9.2 indicate significant differences in music preference by factors other than social class and the "high culture vs. popular culture" distinction. In particular, significant differences in preference are found across age cohorts (as noted in the footnote below). In addition, the music in the "high culture" tradition (classical/chamber music and opera) tended to be less distinctive from other types than were both rock and country-western music.

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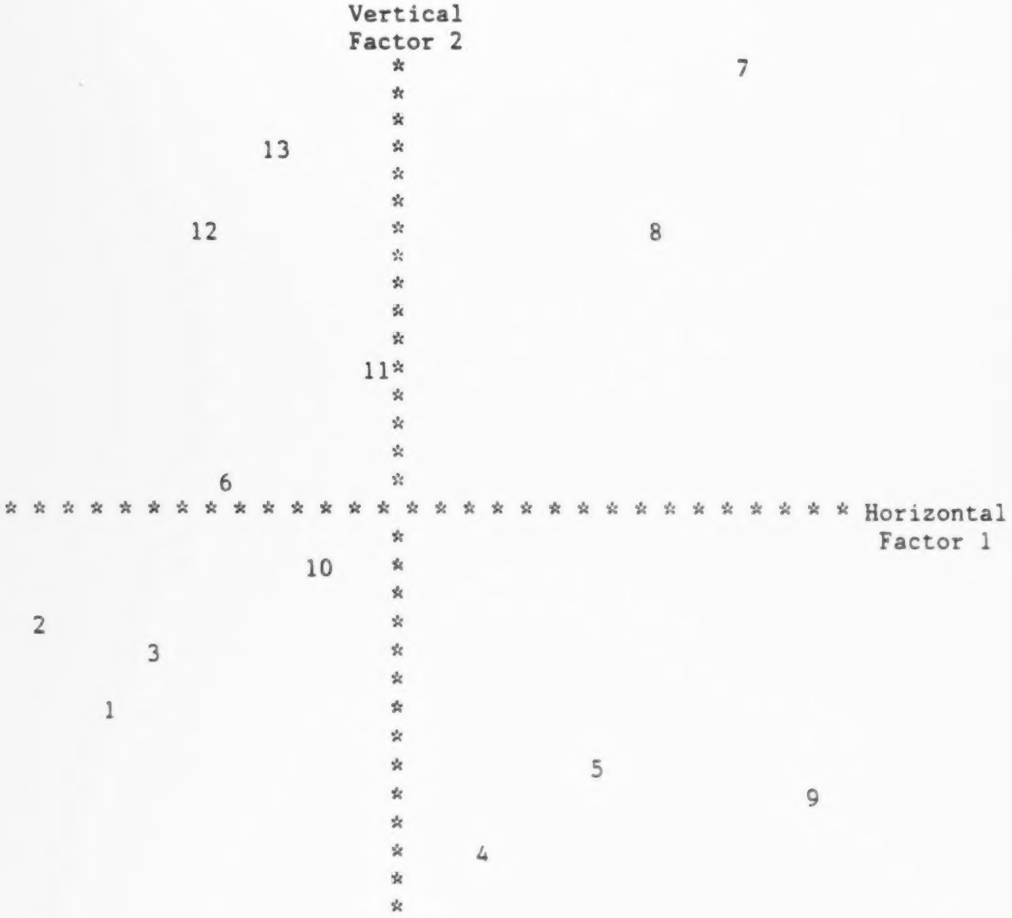
* However, the structure of music preferences found in Figure 9.1 did not hold within all segments of the public in the SPA'82 data. Separate factor analyses of the music preference data for nine different age and education categories indicated that the basic pattern represented in Figure 9.1 was found in only two of the nine categories: the middle-aged/low education (group 4) and the older/less educated (group 7). Among all the younger age groups (numbers 1,2 and 3), the horizontal dimension contrasts the high-low music categories with country and rock music together, and the vertical dimensional separates mood/easy listening and big band music from the other forms. And in the remaining four groups (numbers 5,6,8 and 9), it is the country-bluegrass pairing above that defines the dimensions, with the more classical forms of music defining the second dimension.

Figure 9.2: Distance Mapping of Music Preferences From Ratio-Scale Measures



1=Classical/Chamber
2=Opera
3=Operettas/Musicals/Show Tunes
4=Jazz
5=Soul/Blues/Rhythm and Blues
6=Big Band
7=Country-Western

8=Bluegrass
9=Rock
10=Mood/Easy Listening
11=Folk
12=Barbershop
13=Hymns/Gospel

The reasons that these differential clusterings occur in these particular age-education groups is a topic warranting further analysis and study. The clusters do make clear, however, that not all population groups share the space in Figures 9.1 and 9.2, and that, as these young people mature, we may find some dramatic restructuring of patterns of music preferences in the American population in the years ahead.

D) BACKGROUND DIFFERENCES AND PREFERENCES AMONG DIMENSIONS

Thus far, our analysis has established that respondents with particular age, education, racial, etc. characteristics are likely to prefer certain types of music. Furthermore, preferences for different forms of music tend to share common patterns or dimensions. Our analysis now turns to measures along these dimensions of preference; specifically, do individuals of particular social backgrounds tend to have a wider range of preferences in music along some of the dimensions discussed in the previous section?

Table 9.6 presents data on three indices of preferences broken down by ten background variables. These three indices of preference are: 1) the number of preferences for all 13 types of music; 2) the number of preferences among the four types of music directly related to the core arts activities studied in core questions in SPA'82 (classical music, opera, jazz and musicals), and largely clustered on the first dimension in Figure 9.1; and 3) the number of preferences among the remaining nine types of music.

Table 9.7 presents the relationships between these three indices and each of the 10 background variables after adjustment to control for the other nine background factors.

Index of Preferences for All Types of Music

The average respondent expressed a preference for approximately four of the 13 types of music. Respondents of certain social backgrounds report more or fewer preferences than average with, for example, college graduates, those in households earning over $50,000 and professionals/managers reporting about five music preferences on the average. On the other hand, the "other" racial groups, widowed people and those aged 75 and older reported only about three types of music they liked.

When other factors are controlled, considerable differences still exist among education, income, and racial groups. However, after adjustment, the original age, occupation and marital status differences decrease, although 65-74 year olds, service workers and divorced people all report a higher than average number of preferences.

Index of Preference for Music Forms Related to SPA Core Questions

The average respondent reports a preference for about one type of music from the classical/chamber, opera, operettas/musicals/show tunes, and jazz categories. However, better educated persons, wealthier persons and professionals express preference for closer to two of these music forms.

Education remains the strongest of the 10 predictors after controlling for the influence of other background variables. While the variation drops markedly between income groups, income still has some explanatory power. Occupational differences virtually disappear. Some age differences do emerge, on the other hand, with older people expressing far more preferences for these four "core" music types.

Index of Preference for Other Types of Music

The average respondent reported preferences for about three of the nine other types of music: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, or hymns/gospel. Higher income persons, better educated persons, white collar workers and divorced persons prefer closer to four of these types of music.

TABLE 9.6: Music Preference Indices by Background Factors:
Percentages of Respondents Above or Below the Grand Mean

	All Music	Classical Opera, Operetta/ Musicals/ Show Tunes, Jazz	Other Music Types*
Grand Mean:	4.1	1.0	3.2
Income:			
Under $5,000	3.2	1.1	2.4
$5,000 - $9,999	3.3	0.6	2.7
$10,000 - $14,999	3.8	0.7	3.0
$15,000 - $24,999	4.0	0.9	3.1
$25,000 - $49,999	4.7	1.1	3.5
$50,000 and above	5.2	1.6	3.6
Not acertained	3.9	0.9	3.0
SMSA:			
Central city of SMSA	4.2	1.1	3.2
SMSA, not cent city	4.3	1.1	3.2
Not in SMSA	3.8	0.8	3.1
Age:			
18-24	3.8	0.9	3.0
25-34	4.3	1.0	3.3
35-44	4.4	1.0	3.4
45-54	4.2	1.1	3.1
55-64	4.3	1.0	3.2
65-74	4.0	0.9	3.1
75-96	3.2	0.7	2.4
Marital Status:			
Married	4.1	0.9	3.2
Widowed	3.1	0.6	2.5
Divorced	4.9	1.2	3.7
Separated	4.2	1.0	3.2
Never Married	4.3	1.1	3.1
Race:			
White	4.2	1.0	3.2
Black	3.6	0.9	2.8
Other	2.9	0.8	2.1
Sex:			
Male	4.1	1.0	3.2
Female	4.1	1.0	3.1
Education:			
Grade school	2.6	0.3	2.2
Some High school	3.2	0.5	2.7
High school graduate	3.9	0.7	3.1
Some College	4.9	1.3	3.7
College graduate	5.0	1.6	3.4
Graduate school	5.6	2.0	3.6
Work Hours:			
None	3.8	0.9	2.9
1 to 29	4.4	1.0	3.3
30 to 39	4.0	0.9	3.1
40 hrs.	4.3	1.0	3.3
41 to 49	4.4	1.1	3.3
50 or more	4.8	1.2	3.6
Occupation:			
Professional	5.2	1.7	3.5
Managerial	5.0	1.4	3.6
Sales, Clerical	4.7	1.1	3.5
Craftsman	3.9	0.8	3.1
Operatives	3.2	0.4	2.8
Laborers	3.5	0.5	3.0
Service Workers	4.2	1.0	3.3
Not working	3.4	0.8	2.6
Keeping house	3.6	0.8	2.8
Student	4.5	1.2	3.3
Retired	3.8	0.8	3.0
Presence of Children:			
No Children	4.2	1.0	3.2
One 6-11	3.8	0.8	3.0
Two+ 6-11	4.7	0.9	3.8
One Under 6	3.7	0.8	3.0
One 6-11, One Under 6	4.1	0.9	3.2
One Under 6, Two+ 6-11	3.6	0.9	2.7
Two+ Under 6	4.1	0.9	3.1
One 6-11, Two+ Under 6	4.5	0.8	3.7
Two+ 6-11, Two+ Under 6	3.2	0.4	2.8

* "Other Music Types" is a index based on preference for types of music not directly related to SPA'82 core arts activities, including: Soul/Blues/Rhythm and Blues, Big Band, Country-Western, Bluegrass, Rock, Mood/Easy Listening, Folk, Barbershop, and Hymns/Gospel.

Most of the variation by occupational status is attributable to the impact of other factors. The variations within education, race and income groups are also reduced by controlling for other factors, but certain clear differences do remain.

In general, then, education and age are the major factors along which differences in general music preferences are found.

TABLE 9.7: MCA-Adjusted Music Preference Indices by Background Factors

	All Music	Classical Opera, Operetta/ Musicals/ Show Tunes, Jazz	Other Music Types*
Grand Mean:	4.1	1.0	3.2
Income:			
Under $5,000	3.6	0.9	2.6
$5,000 - $9,999	3.7	0.8	3.0
$10,000 - $14,999	4.1	0.9	3.1
$15,000 - $24,999	4.0	0.9	3.1
$25,000 - $49,999	4.4	1.0	3.4
$50,000 and above	4.7	1.4	3.4
Not acertained	3.8	0.9	3.0
SMSA:			
Central city of SMSA	4.3	1.1	3.2
SMSA, not cent city	4.1	1.0	3.1
Not in SMSA	4.0	0.9	3.2
Age:			
18-24	3.6	0.7	2.8
25-34	4.0	0.8	3.2
35-44	4.0	0.8	3.2
45-54	4.1	1.1	3.0
55-64	4.5	1.2	3.3
65-74	4.9	1.4	3.5
75-96	4.4	1.3	3.2
Marital Status:			
Married	4.0	0.9	3.1
Widowed	3.6	0.7	2.9
Divorced	4.9	1.2	3.7
Separated	4.5	1.1	3.4
Never Married	4.3	1.1	3.1
Race:			
White	4.2	1.0	3.2
Black	4.0	1.0	3.0
Other	2.8	0.7	2.1
Sex:			
Male	4.0	0.9	3.1
Female	4.2	1.0	3.2
Education:			
Grade school	2.8	0.4	2.5
Some High school	3.2	0.5	2.8
High school graduate	3.9	0.8	3.1
Some College	4.9	1.3	3.6
College graduate	4.9	1.5	3.3
Graduate school	5.2	1.8	3.4
Work Hours:			
None	4.2	1.0	3.2
1 to 29	4.1	0.9	3.2
30 to 39	3.8	0.9	2.9
40 hrs.	4.0	0.9	3.1
41 to 49	4.2	1.1	3.2
50 or more	4.3	1.0	3.3
Occupation:			
Professional	4.4	1.1	3.3
Managerial	4.2	1.0	3.2
Sales, Clerical	4.4	1.1	3.3
Craftsman	4.1	1.0	3.1
Operatives	4.0	0.9	3.1
Laborers	4.0	0.8	3.1
Service Workers	4.6	1.2	3.4
Not working	3.7	0.9	2.8
Keeping house	3.8	0.8	3.0
Student	4.4	1.0	3.4
Retired	3.8	0.7	3.2
Presence of Children:			
No Children	4.2	1.0	3.2
One 6-11	3.8	0.9	2.9
Two+ 6-11	4.7	1.1	3.6
One Under 6	3.7	0.8	2.9
One 6-11, One Under 6	4.1	1.0	3.1
One Under 6, Two+ 6-11	3.8	1.1	2.7
Two+ Under 6	4.0	0.9	3.1
One 6-11, Two+ Under 6	4.6	0.8	3.8
Two+ 6-11, Two+ Under 6	4.0	0.9	3.1

* "Other Music Types" is a index based on preference for types of music not directly related to SPA'82 core arts activities, including: Soul/Blues/Rhythm and Blues, Big Band, Country-Western, Bluegrass, Rock, Mood/Easy listening, folk, Barbershop, and Hymns/Gospel.

E) ARTS PARTICIPATION AND MUSIC PREFERENCES

Music preferences can be considered an important aspect of one's life style that may predict arts-related behavior. Enjoyment of a particular form of music, then, reflects cultural preferences that possibly influence attendance at certain arts events.

The correlations presented in Table 9.8 indicate the strength and direction of the relationship between music preferences and attendance at each of the events in the core arts questions. Again, correlations of 0.20 - 0.29 will be termed moderate; correlations of 0.30 - 0.39 substantial; correlations of more than 0.40 strong.

Not surprisingly, those respondents who claimed a music preference for either of the four types of music related to SPA'82 core arts activities were more likely to attend performances of those music forms. A listening preference for jazz or classical/chamber music has the highest substantial relationship with attending jazz or classical music performances, respectively. Similarly, those preferring to listen to operettas/musicals/show tunes or operas are also highly likely to report attending performances of those same types of music. However, there are other correlations across types that are moderately high as well: between liking show tunes and opera and attending classical music performances; and between liking classical music and attending musicals, plays and reading literature.

Generally, preferences for the other nine types of music have only weak positive relationships with participation in the arts. Other music preferences which are moderate correlates of arts attendance include liking soul/blues/rhythm and blues and attending jazz performances and art museums; and liking easy listening music and reading literature. Nonetheless,

TABLE 9.8: Correlations Between Music Preferences and Participation in Core Arts Activities

Attendance at:	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Preferences for:								
Classical/Chamber	.099	.302	.193	.215	.217	.175	.308	.274
Opera	.077	.211	.288	.139	.194	.132	.227	.172
Operettas/Musicals/ Show Tunes	.069	.279	.168	.223	.193	.131	.272	.263
Jazz	.265	.121	.068	.152	.136	.097	.205	.220
Soul/Blues/Rhythm and Blues	.157	.017	.006	.065	.060	.058	.136	.185
Big Band	.104	.129	.084	.125	.115	.086	.123	.180
Country-Western	-.061	-.119	-.050	-.066	-.052	-.055	-.057	-.048
Bluegrass	.058	.000	.015	.009	.029	-.004	.097	.040
Rock	.160	.002	.009	.040	.044	.036	.161	.161
Mood/Easy Listening	.057	.095	.076	.135	.110	.041	.100	.220
Folk	.091	.142	.051	.105	.124	.094	.179	.166
Barbershop	.000	.088	.026	.056	.034	.059	.049	.075
Hymns/Gospel	-.043	.026	.005	.019	.008	-.024	.016	.020

the main preference for music types that predict participation in the arts are preferences for the four music forms related to arts activities described in the core SPA questions. Among the other nine forms, only soul and easy listening music are associated with core arts participation. In fact, preferences for three forms of music -- country-western music and (in some instances) hymns/gospel and bluegrass music -- have negative associations with attending several types of arts performances.

Preferences for classical/chamber music and for operettas/musicals/show tunes correlate rather well, not only with musical art forms, but with participation in most of non-musical art forms -- such as attending stage plays, visiting art galleries and museums and reading novels, short stories, poetry and plays. And while most of these correlations in Table 9.8 may seem rather low, a different perspective is afforded in Table 9.8a, which shows the different "odds ratios" between music preference and arts participation. Thus the 8.2 figure in the second column of Table 9.8a indicates that respondents who like classical music are about eight times more likely to have attended a classical/chamber music performance than respondents who do not like classical music. People who like classical music are also much more likely to have attended an opera performances, to have seen a play and to have seen a ballet performance.

Many of the ratios in Table 9.8a are greater than 2.0, meaning that these music preferences are associated with more than twice the rate of arts participation among individuals without such music preferences. Among the other high odds ratios in Table 9.8a are liking opera and attending classical music, stage plays and ballet performances; and liking show tunes and attending classical music, opera and plays (and art museums). Among

TABLE 9.8a: Odds Ratios Relationship Between Music Preferences and Participation in Core Arts Activities

Attendance at:	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Preferences for:								
Classical/Chamber	2.2	8.2	16.4	3.5	14.1	5.8	4.3	3.6
Opera	2.0	5.3	17.6	2.8	4.3	4.6	3.3	3.5
Operettas/Musicals/ Show Tunes	1.8	6.8	6.7	4.1	4.2	3.8	4.1	3.8
Jazz	8.0	2.8	2.9	2.6	2.8	2.3	3.1	2.6
Soul/Blues/Rhythm and Blues	3.9	1.4	1.3	1.7	1.7	1.9	2.6	2.3
Big Band	1.8	2.6	3.1	2.3	2.2	2.2	2.0	2.2
Country-Western	0.6	0.5	0.5	0.7	0.6	0.5	0.7	0.8
Bluegrass	1.6	1.2	1.4	1.1	1.2	0.8	1.6	1.2
Rock	3.3	1.1	1.2	1.5	8.8	1.4	2.4	1.9
Mood/Easy Listening	1.5	2.0	2.6	2.5	2.1	1.5	1.8	2.3
Folk	1.9	2.4	2.0	1.9	2.0	2.5	2.4	2.3
Barbershop	1.1	2.0	1.7	1.6	1.3	1.5	1.4	1.5
Hymns/Gospel	0.7	1.3	1.0	1.2	1.0	0.6	1.0	1.0

non-core music forms, higher odds ratios are found for liking soul or rock music and attending jazz performances; liking big band music and attending opera or classical music performances; and liking easy listening and attending opera and musicals.

The strength of the relationships between music preferences for the core music forms (jazz, classical/chamber music, opera, and operettas/musicals/show tunes) and attending performances of the respective art forms is represented in still another fashion in Tables 9.9 and 9.10. These tables highlight the four relationships in Tables 9.8 and 9.8a that most directly focus on music preference and behavior, by presenting the percentage of those who expressed a music preference and also attended a live performance of the same type of music. As shown by the odds ratios in Table 9.8, those who reported enjoying a particular type of music are at least three times more likely to attend a performance than are those not expressing such a preference. Listing a particular music listening preference, then, is strongly related to attending a performance of that type of music.

Table 9.10 shows these same relationships after the effects of 10 of the respondents' background characteristics have been statistically controlled.* While some of the variation in attendance is attributable to the influence of these background factors, most of the variation in music preference remains clearly independent of associated background characteristics. A preference for a particular music form, then, continues to function as an important predictor of attendance of performances of the same type of music.

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* The ten background variables are income, age, SMSA location, ethnicity-race, number of children, sex, occupation, marital status, education, and work hours.

TABLE 9.9: Music Preferences and Attendance Patterns: Percentages of Respondents Reporting a Music Preference Who Attend Performances of the Same Type of Music

Attended Once in Past 12 Months

Like Same Type of Music:	Jazz	Classical Music	Opera	Musicals
No	4%	5%	1%	10%
Yes	21%	27%	15%	35%

TABLE 9.10: MCA-Adjusted Music Preferences and Attendance Patterns: Percentages of Respondents Reporting a Music Preference Who Attended Performances of the Same Type of Music*

Attended Once in Past 12 Months

Like Same Type of Music:	Jazz	Classical Music	Opera	Musicals
No	5%	7%	1%	12%
Yes	19%	21%	14%	29%

* Background factors are income, age, SMSA, ethnicity and race, number of children, sex, employment status, marital status, education, and number of work hours.

F) INDICES OF MUSIC PREFERENCE AND ARTS PARTICIPATION

The correlations between each of the 13 music preferences and participation in the arts suggest that preferences for jazz, opera, classical music, and operettas/musicals/show tunes are the better set of correlates of participation. However, we can also expect, therefore, that as the number of preferences for such music increases, so will participation in the arts. In other words, the more of these music preferences reported by a respondent, the stronger the relationship with participation in the arts. The same may be true, but to a much lesser extent, for preferences for the other nine music forms.

Tables 9.11 and 9.12 present the data relevant to this hypothesis. The first music preference index represents the number of preferences for jazz, opera, classical/chamber music and operettas/musicals/show tunes. The second music preference index summarizes preferences for the nine other types of music studied in the survey. Table 9.11 shows the associations between these two indices and participation in the arts. Table 9.12 shows the same associations after the influence of background characteristics has been statistically controlled. The first table thus reveals the strength of the indices as correlates, while the second table suggests the strength of the indices as predictors independent of background factors.

For every art form in Table 9.11, the index of listening preferences for jazz, opera, classical music, and operettas/musicals/show tunes has a clear and regular relationship with increased participation in the arts. That is, as respondents prefer to listen to 0, 1, 2, 3 or 4 of these types of music, they tend progressively to be more likely to participate in the arts. Moreover, this index generally correlates more clearly and regularly

BLE 9.11: Arts Participation by Two Music Preference Indices

	Jazz	Classical Music	Opera	Musical	Plays	Ballet	Art Museums	Arts Participation Index**
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	0.8
Classical, Opera, Operetta/ Musicals/ Show Tunes, Jazz								
0	4	2	0	6	4	1	9	0.3
1	12	9	1	18	11	3	22	0.8
2	16	25	4	30	19	6	40	1.4
3	17	38	10	38	30	12	53	2.0
4	28	33	17	39	38	15	53	2.2
Other Music Preferences*:								
0	1	5	1	7	8	2	7	0.3
1	4	6	1	9	6	1	12	0.4
2	8	10	2	15	8	3	19	0.7
3	11	14	2	20	16	6	23	0.9
4	16	13	3	17	12	5	26	0.9
5	14	13	3	23	18	5	33	1.1
6	15	18	6	22	14	5	37	1.2
7	18	12	2	23	20	3	33	1.1
8	12	20	3	30	16	9	33	1.2
9	6	19	3	33	14	0	43	1.2

Notes: * "Other Music Preferences" is an index based on preferences for types of music not directly related to SPA'85 core arts activities, including: Soul/Blues/Rhythm and Blues, Big Band, Country-Western, Bluegrass, Rock, Mood/Easy listening, Folk, Barbershop, and Hymns/Gospel

** Participation index is based on a count of recent attendances at jazz, classical music, opera, musicals, plays, ballet and arts museums, but excludes reading.

with arts participation than does the second index, that for other music preferences. Thus, in the case of attending performances of classical music, there is a much wider gap between liking four "core" music types (33%) and liking none (2%); the attendance rate for liking four (or more) of the nine non-core music types only varies between 12% and 20%, as compared to 5% attendance rates for those who like none of these nine music forms. On the first index in other words, the gap is 31 percentage points, while on the second, it is at most 15 percentage points. Much the same can be found for the overall participation index shown in the final column of Table 9.11, where the gap is 1.9 points for index one and .9 points for index two for high and low music preference groups.

Table 9.12 indicates that when background factors are controlled, the high group minus the low group variations are reduced, particularly for the second general music index. However, the relationship between a greater number of preferences for the core music forms and participation in the arts remains clear and positive. This index of preferences for the more "serious" music of the four "core" types thus remains a useful predictor of arts attendance, independent of the effects of other background predictors of arts participation.

On the other hand, when background variables are held constant, the relationship between the second index ("other music preferences") and participation in the arts largely disappears and, for some art forms, actually reverses direction -- i.e., the more forms of music liked, the lower the participation. Consequently, a greater number of other music preferences in general does not predict higher rates of arts participation, but often predicts lesser arts participation once background factors are controlled.

TABLE 9.12: MCA-Adjusted Arts Participation by Two Music Preferences Indices

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Arts Participation Index**
Grand Mean:	10%	13%	3%	17%	12%	4%	22%	0.8
Classical, Opera, Operettas/Musicals/Show Tunes, Jazz								
0	4	0	0	5	3	1	9	0.7
1	11	9	1	18	10	3	21	0.7
2	15	27	4	31	19	7	39	1.4
3	18	41	11	40	33	13	53	2.1
4	29	39	20	41	42	17	34	2.4
Other Music Preferences*:								
0	5	12	3	14	13	4	15	0.6
1	8	13	3	16	11	4	19	0.7
2	10	14	4	18	11	5	23	0.8
3	11	16	3	22	17	7	25	1.0
4	15	13	3	16	11	5	25	0.9
5	11	6	1	16	13	3	25	0.7
6	10	7	3	12	6	2	25	0.6
7	13	0	0	13	11	0	20	0.5
8	4	3	0	15	2	3	14	0.4
9	0	1	0	15	0	0	20	0.1

Notes: * "Other Music Preferences" is an index based on preferences for types of music not directly related to SPA'82 core arts activities, including: Soul/Blues/Rhythm and Blues, Big Band, Country-Western, Bluegrass, Rock, Mood/Easy listening, Folk, Barbershop, and Hymns/Gospel

** Participation index is based on a count of recent attendances at jazz, classical music, opera, musicals, plays, ballet and art museums, but excludes reading.

SUMMARY

The focus in this chapter has been on music preference as an indicator of arts participation patterns. The analysis has provided several findings about the extent and nature of music preferences among U.S. adults. The extent of preferences among 13 types of music varies greatly, ranging from an estimated 91 million adults who said they like country-western music to about 18 million who said they like opera.

Preference for favorite music forms differs widely by certain social background factors, particularly education, age and income. For example, rock music is most preferred among the college educated, the young, members of middle income households and men; on the other hand, hymns/gospel music tend to be preferred by the less educated, older persons, members of lower income households and women.

Music preferences tend to cluster along three dimensions, which can be categorized as deriving from either traditional European music (such as classical/chamber, opera, jazz or operettas/musicals/show tunes), white American folk music, or black American folk music. Persons with a college education, with a higher household income or in an older age group tend to enjoy more types of music in general, as well as the core types studied in Chapter 3.

While preference for these four core music forms continue to predict greater arts participation after other background and music preference factors were controlled, cumulative preferences for the other nine forms of music sometimes was associated with lower participation in the arts.

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APPENDIX A

FURTHER SURVEY DOCUMENTATION AND BACKGROUND ON SURVEY METHODOLOGY

DATA COLLECTION

The Bureau of the Census has been conducting monthly surveys of households throughout the United States to inquire about personal experiences. Since July 1972, this national sample consists of a panel of 72,000 households visited twice a year for three years, with new units replacing expired ones at the end of that period. Interviewing takes place each month at approximately 10,000 households, of which about one-seventh were included in the Survey of Public Participation in the Arts (SPA). Thus, only about 15% of the roughly 14,000 households interviewed monthly in this larger survey were assigned households from which the roughly 2200 respondents were interviewed each month -- after elimination of Types A, B, Z and Proxy noninterviews (as described in Chapter 2).

A. SAMPLE

Design

The national sample for the larger survey includes persons living in households and group quarters. Persons who are crew members on vessels, in institutions or members of the armed forces living in military barracks are excluded from the survey. The sample design is a stratified multi-stage cluster sample. The primary sampling units (PSU's) were formed from counties or groups of contiguous counties using every county in the coterminous United States, Alaska and Hawaii. These 1,931 PSU's are identical to those formed for the Current Population Survey (CPS) conducted by the U.S. Bureau of the Census.

Stratification

These 1,931 PSU's were grouped into 376 strata. One hundred and fifty-six of the strata consist of only one PSU and these types of PSU's are called self-representing (SR). The remaining 220 strata were formed by combining PSU's with similar characteristics, such as geographic region, population density, rate of growth in the 1960-1970 decade, nonwhite proportion, principal industry, number of farms, retail sales per capita, etc. These characteristics were selected because they showed a strong relationship to crime victimization data. The strata were formed so that their 1970 population sizes were approximately equal. From these 220 strata, one PSU was selected per stratum with probability proportionate to the size of the PSU. These PSU's are called non-self representing (NSR). The 376 PSU's selected comprised the first stage of sampling.

The objective of the remaining stages of sampling was to obtain a self-weighting probability sample of 72,000 households. Self-weighting means that all sample units have the same initial probability of selection. The 72,000 households were divided into six groups of panels, each of which was interviewed in a given month, and again later at six month intervals. This sample yielded approximately 60,000 interviewed households in each six month period. The remaining 12,000 sample households were not interviewed because the occupants were not at home or were unavailable for other reasons (i.e., the sample units were vacant, demolished, or otherwise not able to be interviewed).

Rate and Interval

The rate of sampling within each PSU was determined in such a way that the overall sampling rate for each household is the same. Initially, the overall sampling rate was approximately 985. This overall rate was modified over time so that the size of the sample was held relatively constant despite the overall growth of the population. The sample of households within a PSU was selected in two stages. The first stage involved the selection of enumeration districts (ED's), geographic areas used for the 1970 Census that are usually well defined boundaries and contain, on the average, about 300 households. The ED's were selected systematically from a geographically arranged listing, so that the sample ED's were spread over the entire PSU. The ED's were selected with probabilities proportionate to their 1970 population sizes.

The next stage involved the subdivision of each selected ED into segments or clusters of about four housing units and the selection of a sample of these segments. When possible, the clusters were formed from the list of addresses compiled during the 1970 Census. If the list of addresses was incomplete or inaccurate, area sampling methods were used. The address lists were used in about two-thirds of the ED's, these being in primarily urban areas. Area sampling was then applied to the remaining ED's.

Units built after the 1970 Census which were not included in the above sampling process were sampled primarily from a list of new construction building permits issued from permit issuing offices in the areas. The resulting sample of new construction units is a small part of the total sample but increased as the decade progressed. In addition, units in group quarters such as dormitories or boarding houses known as "special places" were also selected in special place segments. These are also a small part of the total sample.

Rotation

A rotation scheme is used for the national sample. The sample of 72,000 households was divided into six groups or rotations. Once the rotation was fully operative, households in each rotation group were interviewed once every six months for three years. The initial interview served the purpose of establishing a time frame for avoiding recording duplicate reports on subsequent visits. Additional samples of 72,000 households selected in the above manner were assigned to six rotation groups for subsequent rotation into the sample. One rotation group entered the sample every six months, and the corresponding rotation group from a previous sample was phased out.

The assignments of rotation group numbers and panel numbers to the 72,000 sample housing units were made to complete segments of housing units with three objectives: 1) each rotation group should be a systematic one-sixth sample of the 72,000 housing units, as well as a one-sixth sample of the sample interviewed each month; 2) each panel would provide a systematic one-sixth sample of the 72,000 housing units; and 3) it would be possible to combine rotation groups and panels to form sub-samples for variance estimation purposes.

IMPLEMENTATION PROCEDURES

Coverage

The implementation of the sample in the field is concerned with locating units designated for the sample and identifying all persons living in the sample unit. This is called the "coverage of the survey." Sample units are located in various types of segments, depending upon the type of ED in which the segment is located. In the omnibus national sample there were five types of segments:

(1) "Address segments" consist of addresses selected from the Decennial Census lists. Usually four housing units are designated for interview in a particular omnibus survey segment in any one month. Interviewers list the units at an address the first time it is visited for interview and update the listing at regular intervals. Omnibus survey sample lines are predesignated on the listing sheet. The listing is completed before any units are interviewed.

(2) "Area segments" consist of geographic areas designated within area segment ED's. A map is provided on which the segment is delineated by well defined boundaries. Units in the segments are prelisted and omnibus survey sample units are selected prior to the time of the interview; area segments are updated at regular intervals prior to the interview visit.

(3) "Permit segments" consist of addresses selected from a sample of building permits issued for new construction. These segments represent new construction in areas covered by address segments.

(4) "Special place segments" consist of special places in the address segment ED's which can be identified from Census listings. These

include housing units and other units such as boarding houses, where unrelated persons share common facilities. These places were called "group quarters" in the Census. In large special places, units are prelisted and sampled prior to interview. All special places are updated at regular intervals.

(5) "Cen-sup segments" consist of addresses which were inadequately identified or unreported in the Census. These segments are handled like address segments except that sample units may be recycled for a later omnibus survey sample.

There are a number of procedures designed to obtain complete and accurate coverage. In address, permit, Cen-sup, and special place segments, interviewers list units by observation, by canvassing the structure and/or by inquiry. The listing is then verified or corrected by a knowledgeable person such as a building manager. In area segments, the listing is done by observation and inquiries are done only when the number or location of units cannot be observed. The listing in area segments is supplemented by coverage questions, which are asked during the first and fourth interviews to identify extra units at sample addresses. An unbiased procedure is used for allocating extra units to sample. Sometimes after the original listing, two or more units may merge to form one unit. If the units involved are not in the same general survey sample, an unbiased procedure is used to allocate the merger to an appropriate sample.

For coverage of persons, a control card is filled out on the first interview visit for each sample unit and this is updated on subsequent visits by a series of probe questions. A list is made of all persons living or staying in a unit, and through a series of questions, those who are considered to be household members are identified.

Interviewers are unable to obtain interviews at 3 to 4 percent of the occupied units in a sample in any given month. These are classified as Type A noninterviews and a noninterview adjustment is applied so that units are representative in the sample. In addition, some units selected for a sample are vacant or otherwise not eligible for interview. Those units which might be occupied in the future are revisited while the unit is in sample. These are called Type B noninterviews. If the unit becomes occupied, the household members are interviewed. Units which are demolished, converted to non-residential use or otherwise out of sample for the larger survey are dropped from the sample. These are called Type C noninterviews. The sample size is sufficiently large to compensate for Type B and C noninterviews.

B. SAMPLING ERRORS

Estimation Procedure

The distribution of the sample usually differs somewhat from the distribution of the universe in terms of characteristics such as age, race, sex, and residence. These characteristics are closely correlated with certain measurements made from the sample. Therefore, various stages of ratio estimation are employed to bring the distribution of the sample into closer agreement with the universe distribution, as known through independent auxiliary data, thus reducing the variability of the sample estimates. Two stages of ratio estimation are employed to estimate personal characteristics; and these two stages, plus a third stage, are employed. The ratio estimation takes the form of multiplying the sample estimate of the characteristic by the ratio of the best independent estimate of the total population to the sample estimate of the total population.

C. DATA COLLECTION

Questionnaire

Three basic forms are used to collect the required data for the national sample for the larger survey. These forms are the survey Control Card, the Basic Screen Questionnaire and the Incident Report.

The Control Card is the Basic Record of each sample unit and constitutes a permanent record as long as it is in the sample. It contains the address of each sample unit and the basic household data, such as the names of all the persons living in the household, their age, sex, marital status and education. In addition, such items as family income and tenure of the unit are also included on the Control Card. The Control Card also serves as a record of visits, telephone calls, interviews, non-interview reasons, and the discovery of extra housing units. It is the first form the interviewer completes during an interview and is updated on each subsequent visit.

The Basic Screen Questionnaire is used for all sample units to obtain characteristics of the household members 12 years of age or older, as well as to screen for related behavioral incidents experienced by household members.

After such incidents have been reported in the Basic Screen Questionnaire, the respondents are questioned about the details using the Incident Report. One Incident Report is filled out for each incident reported except in certain cases ending the last day of the month which precedes the month of the interview. The interviewer never asks about incidents that occurred during the interview month or prior to that six-month reference period.

Method

The interviewer's initial contact with a sample household is a personal visit in which the maximum number of available household members 12 years or older are interviewed at the time of that visit. In order to save time and money, interviewers are allowed to make telephone callbacks to obtain interviews with the remaining household members after the initial personal interviews.

Questions pertaining to the entire household are asked only once. Almost any adult is technically eligible to answer household questions. These questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member for these questions.

Household Respondent

The questions on the Basic Questionnaire which pertain to individuals are asked as many times as there are eligible household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response (each individual responds for himself). Information about each household member aged 12 and 13 is obtained by a proxy interview (questions for these persons are asked of the household respondent or some other knowledgeable household member). If a particular respondent is physically or mentally unable to answer the individual questions or if s/he is temporarily absent and not expected to return before the enumeration closeout date, a proxy interview is conducted.

Interview Sequence

In the general interview sequence for the large survey, interviewers are required to: 1) complete a Control Card for the unit, 2) ask all appropriate personal characteristics and screen questions on the Basic Screen Questionnaire, 3) complete detailed reports on the Incident Report for the household respondent in the Basic Screen Questionnaire, and 4) ask all appropriate personal characteristics and screen questions and complete the incident reports, if any, for each subsequent eligible household member. An entire interview must be completed for each household member before proceeding with the next member.

APPENDIX B

DETAILED OCCUPATION CODES AND RECODES

Occupation Codes Grouped into Categories Shown in Table 4.8

1) Arts and Entertainent	043,183-199
2) College Teachers	113-154
3) Librarians	164,165
4) Physical Scientists	065-083
5) Social Scientists	166-173
6) Lawyers, Judges	178,179
7) Physicians	084-089,096
8) Secondary teachers	157-159
9) Primary teacher	155,156
10) Counseling	027,163,174-177
11) Nurses	095,097-106
12) Computer Specialists	064,229
13) Engineers	044-063
14) Health Technicians	203-208
15) Engineer Technicians	213-218
16) Other Technicians	223-228,233-235
17) Accountants	023
18) Administrators	003-006,014
19) Managers	007-013,015-018
20) Other Managers	019,024-026,028-037
21) Advertising, Sales reps	243-259
22) Other Sales	263-274
23) Sales Clerks, Retail	275,277-285
24) Supervisors	303-307,359,375,376,384
25) Public Contact	276,316-323,377,378,383,387
26) Secretarial	313-315
27) Communication	348-357
28) Record Keepers	325-344,363-374,386
29) Machine Operators	345-347,385,308,309
30) Other Clerical	379,389
31) Artisans	535,647-649,679,735,789,793
32) Foreman	503,553-558,613,633
33) Carpenters	563,567,656,657
34) Painters	579
35) Electricians	575,577
36) Plumbers	585
37) Auto Mechanic	505
38) Other Mechanics	507-534,536-549
39) Other Craftsmen/ Apprentices	506,564-566,569-573,576,583,584,587-599, 614-617,634-646,653-655,658,659,666-678, 683-699
40) Precision	703-734,736,737
41) Textile	738-749
42) Other Operatives	753-787,794-799
43) Car Drivers	809
44) Truck Drivers	804,805
45) Other Transportation	803,806-808,813-859
46) Other Laborers	483-499,863-889
47) Farmers	473-476
48) Farm Labor	477-479
49) Waiters	435
50) Protective	413-427
51) Health	445-447
52) Food Related	433,437-444
53) Private Household	403,405,407
54) Service Workers	454-455,459-464,466,469
55) Cleaning	448-453
56) Other attendants	404,406,434,436,456-458,465,467,468
57) All other Occupations	905
58) Non-Labor Force	999

Attachment B

September 2, 1981

U.S. DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

1980 CENSUS OF POPULATION
OCCUPATIONAL CLASSIFICATION SYSTEM
DETAILED OCCUPATIONAL CATEGORIES

(The numbers in parentheses refer to the 1980 Standard Occupational Classification code equivalents. Pt means part. N.e.c. means not elsewhere classified.)

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS

1980 CODE	Executive, Administrative, and Managerial Occupations
003	Legislators (111)
004	Chief executives and general administrators, public administration (112)
005	Administrators and officials, public administration (1132-1139)
006	Administrators, protective services (1131)
007	Financial managers (122)
008	Personnel and labor relations managers (123)
009	Purchasing managers (124)
013	Managers, marketing, advertising, and public relations (125)
014	Administrators, education and related fields (128)
015	Managers, medicine and health (131)
016	Managers, properties and real estate (1353)
017	Postmasters and mail superintendents (1344)
018	Funeral directors (pt 1359)
019	Managers and administrators, n.e.c. (121, 126, 127, 132-139, exc. 1344, 1353, pt 1359)
	Management Related Occupations
023	Accountants and auditors (1412)
024	Underwriters (1414)
025	Other financial officers (1415, 1419)
026	Management analysts (142)
027	Personnel, training, and labor relations specialists (143)
028	Purchasing agents and buyers, farm products (1443)
029	Buyers, wholesale and retail trade except farm products (1442)
033	Purchasing agents and buyers, n.e.c. (1449)
034	Business and promotion agents (145)
035	Construction inspectors (1472)
036	Inspectors and compliance officers, exc. construction (1473)
037	Management related occupations, n.e.c. (149)

Professional Specialty Occupations

	Engineers, Architects, and Surveyors
043	Architects (161)
	Engineers
044	Aerospace (1622)
045	Metallurgical and materials (1623)
046	Mining (1624)
047	Petroleum (1625)
048	Chemical (1626)
049	Nuclear (1627)
053	Civil (1628)
054	Agricultural (1632)
055	Electrical and electronic (1633,1636)
056	Industrial (1634)
057	Mechanical (1635)
058	Marine and naval architects (1637)
059	Engineers, n.e.c. (1639)
063	Surveyors and mapping scientists (164)
	Mathematical and Computer Scientists
064	Computer systems analysts and scientists (171)
065	Operations and systems researchers and analysts (172)
066	Actuaries (1732)
067	Statisticians (1733)
068	Mathematical scientists, n.e.c. (1739)
	Natural Scientists
•069	Physicists and astronomers (1842, 1843)
•073	Chemists, except biochemists (1845)
•074	Atmospheric and space scientists (1846)
•075	Geologists and geodesists (1847)
•076	Physical scientists, n.e.c. (1849)
•077	Agricultural and food scientists (1853)
•078	Biological and life scientists (1854)
079	Forestry and conservation scientists (1852)
083	Medical scientists (1855)
	Health Diagnosing Occupations
084	Physicians (261)
085	Dentists (262)
086	Veterinarians (27)
087	Optometrists (281)
088	Podiatrists (283)
089	Health diagnosing practitioners, n.e.c. (289)
	Health Assessment and Treating Occupations
095	Registered nurses (29)
096	Pharmacists (301)
097	Dietitians (302)
	Therapists
098	Inhalation therapists (3031)
099	Occupational therapists (3032)
103	Physical therapists (3033)
104	Speech therapists (3034)
105	Therapists, n.e.c. (3039)
106	Physicians' assistants (304)

	Teachers, Postsecondary
113	Earth, environmental, and marine science teachers (2212)
114	Biological science teachers (2213)
115	Chemistry teachers (2214)
116	Physics teachers (2215)
117	Natural science teachers, n.e.c. (2216)
118	Psychology teachers (2217)
119	Economics teachers (2218)
123	History teachers (2222)
124	Political science teachers (2223)
125	Sociology teachers (2224)
126	Social science teachers, n.e.c. (2225)
127	Engineering teachers (2226)
128	Mathematical science teachers (2227)
129	Computer science teachers (2228)
133	Medical science teachers (2231)
134	Health specialties teachers (2232)
135	Business, commerce, and marketing teachers (2233)
136	Agriculture and forestry teachers (2234)
137	Art, drama, and music teachers (2235)
138	Physical education teachers (2236)
139	Education teachers (2237)
143	English teachers (2238)
144	Foreign language teachers (2242)
145	Law teachers (2243)
146	Social work teachers (2244)
147	Theology teachers (2245)
148	Trade and industrial teachers (2246)
149	Home economics teachers (2247)
153	Teachers, postsecondary, n.e.c. (2249)
154	Postsecondary teachers, subject not specified
	Teachers, Except Postsecondary
155	Teachers, prekindergarten and kindergarten (231)
N(156)	Teachers, elementary school (232)
P(157)	Teachers, secondary school (233)
158	Teachers, special education (235)
159	Teachers, n.e.c. (236, 239)
163	Counselors, educational and vocational (24)
	Librarians, Archivists, and Curators
164	Librarians (251)
165	Archivists and curators (252)
	Social Scientists and Urban Planners
166	Economists (1912)
167	Psychologists (1915)
168	Sociologists (1916)
169	Social scientists, n.e.c. (1913, 1914, 1919)
173	Urban planners (192)

Social, Recreation, and Religious Workers
174 Social workers (2032)
175 Recreation workers (2033)
176 Clergy (2042)
177 Religious workers, n.e.c. (2049)
Lawyers and Judges
178 Lawyers (211)
179 Judges (212)

Writers, Artists, Entertainers, and Athletes
183 Authors (321)
184 Technical writers (398)
185 Designers (322)
186 Musicians and composers (323)
187 Actors and directors (324)
188 Painters, sculptors, craft-artists, and artist printmakers (325)
189 Photographers (326)
193 Dancers (327)
194 Artists, performers, and related workers, n.e.c. (328, 329)
195 Editors and reporters (331)
197 Public relations specialists (332)
198 Announcers (333)
199 Athletes (34)

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Technicians and Related Support Occupations
Health Technologists and Technicians

203 Clinical laboratory technologists and technicians (362)
204 Dental hygienists (363)
205 Health record technologists and technicians (364)
206 Radiologic technicians (365)
207 Licensed practical nurses (366)
208 Health technologists and technicians, n.e.c. (369)

Technologists and Technicians, Except Health

Engineering and Related Technologists and Technicians
213 Electrical and electronic technicians (3711)
214 Industrial engineering technicians (3712)
215 Mechanical engineering technicians (3713)
216 Engineering technicians, n.e.c. (3719)
217 Drafting occupations (372)
218 Surveying and mapping technicians (373)
Science Technicians
223 Biological technicians (382)
224 Chemical technicians (3831)
225 Science technicians, n.e.c. (3832, 3833, 384, 389)

Technicians; Except Health, Engineering, and Science

226 Airplane pilots and navigators (825)
227 Air traffic controllers (392)
228 Broadcast equipment operators (393)
229 Computer programmers (3971, 3972)
233 Tool programmers, numerical control (3974)
234 Legal assistants (396)
235 Technicians, n.e.c. (399)

Sales Occupations

243 Supervisors and proprietors, sales occupations (40)

Sales Representatives, Finance and Business Services

253 Insurance sales occupations (4122)
254 Real estate sales occupations (4123)
255 Securities and financial services sales occupations (4124)
256 Advertising and related sales occupations (4153)
257 Sales occupations, other business services (4152)

Sales Representatives, Commodities Except Retail

258 Sales engineers (421)
259 Sales representatives, mining, manufacturing, and wholesale (423, 424)

Sales Workers, Retail and Personal Services

263 Sales workers, motor vehicles and boats (4342, 4344)
264 Sales workers, apparel (4346)
265 Sales workers, shoes (4351)
266 Sales workers, furniture and home furnishings (4348)
267 Sales workers; radio, TV, hi-fi, and appliances (4343, 4352)
268 Sales workers, hardware and building supplies (4353)
269 Sales workers, parts (4367)
274 Sales workers, other commodities (4345, 4347, 4354, 4356, 4359, 4362, 4369)
275 Sales counter clerks (4363)
Q(276) Cashiers (4364)
277 Street and door-to-door sales workers (4366)
278 News vendors (4365)

Sales Related Occupations

283 Demonstrators, promoters and models, sales (445)
284 Auctioneers (447)
285 Sales support occupations, n.e.c. (444, 446, 449)

Administrative Support Occupations, Including Clerical

Supervisors, Administrative Support Occupations

303 Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)
304 Supervisors, computer equipment operators (4512)
305 Supervisors, financial records processing (4521)
306 Chief communications operators (4523)
307 Supervisors; distribution, scheduling, and adjusting clerks (4522, 4524-4528)

	Computer Equipment Operators
308	Computer operators (4612)
309	Peripheral equipment operators (4613)
	Secretaries, Stenographers, and Typists
R(313)	Secretaries (4622)
314	Stenographers (4623)
315	Typists (4624)
	Information Clerks
316	Interviewers (4642)
317	Hotel clerks (4643)
318	Transportation ticket and reservation agents (4644)
319	Receptionists (4645)
323	Information clerks, n.e.c. (4649)
	Records Processing Occupations, Except Financial
325	Classified-ad clerks (4662)
326	Correspondence clerks (4663)
327	Order clerks (4664)
328	Personnel clerks, except payroll and timekeeping (4692)
329	Library clerks (4694)
335	File clerks (4696)
336	Records clerks (4699)
	Financial Records Processing Occupations
S(337)	Bookkeepers, accounting, and auditing clerks (4712)
338	Payroll and timekeeping clerks (4713)
339	Billing clerks (4715)
343	Cost and rate clerks (4716)
344	Billing, posting, and calculating machine operators (4718)
	Duplicating, Mail and Other Office Machine Operators
345	Duplicating machine operators (4722)
346	Mail preparing and paper handling machine operators (4723)
347	Office machine operators, n.e.c. (4729)
	Communications Equipment Operators
348	Telephone operators (4732)
349	Telegraphers (4733)
353	Communications equipment operators, n.e.c. (4739)
	Mail and Message Distributing Occupations
354	Postal clerks, exc. mail carriers (4742)
355	Mail carriers, postal service (4743)
356	Mail clerks, exc. postal service (4744)
357	Messengers (4745)
	Material Recording, Scheduling, and Distributing Clerks, n.e.c.
359	Dispatchers (4751)
363	Production coordinators (4752)
364	Traffic, shipping, and receiving clerks (4753)
365	Stock and inventory clerks (4754)
366	Meter readers (4755)
368	Weighers, measurers, and checkers (4756)
369	Samplers (4757)
373	Expediters (4758)
374	Material recording, scheduling, and distributing clerks, n.e.c. (4759)

	Adjusters and Investigators
375	Insurance adjusters, examiners, and investigators (4782)
376	Investigators and adjusters, except insurance (4783)
377	Eligibility clerks, social welfare (4784)
378	Bill and account collectors (4786)
	Miscellaneous Administrative Support Occupations
379	General office clerks (463)
383	Bank tellers (4791)
384	Proofreaders (4792)
385	Data-entry keyers (4793)
386	Statistical clerks (4794)
387	Teachers' aides (4795)
389	Administrative support occupations, n.e.c. (4787, 4799)

SERVICE OCCUPATIONS

	Private Household Occupations
403	Launderers and ironers (503)
404	Cooks, private household (504)
405	Housekeepers and butlers (505)
406	Child care workers, private household (506)
T(407)	Private household cleaners and servants (502, 507, 509)
	Protective Service Occupations
	Supervisors, Protective Service Occupations
413	Supervisors, firefighting and fire prevention occupations (5111)
414	Supervisors, police and detectives (5112)
415	Supervisors, guards (5113)
	Firefighting and Fire Prevention Occupations
416	Fire inspection and fire prevention occupations (5122)
417	Firefighting occupations (5123)
	Police and Detectives
418	Police and detectives, public service (5132)
423	Sheriffs, bailiffs, and other law enforcement officers (5134)
424	Correctional institution officers (5133)
	Guards
425	Crossing guards (5142)
426	Guards and police, exc. public service (5144)
427	Protective service occupations, n.e.c. (5149)
	Service Occupations, Except Protective and Household
	Food Preparation and Service Occupations
433	Supervisors, food preparation and service occupations (5211)
434	Bartenders (5212)
U(435)	Waiters and waitresses (5213)
436	Cooks, except short order (5214)
437	Short-order cooks (5215)
438	Food counter, fountain and related occupations (5216)
439	Kitchen workers, food preparation (5217)
443	Waiters'/waitresses' assistants (5218)
444	Miscellaneous food preparation occupations (5219)

	Health Service Occupations
445	Dental assistants (5232)
446	Health aides, except nursing (5233)
447	Nursing aides, orderlies, and attendants (5236)
	Cleaning and Building Service Occupations, except Household
448	Supervisors, cleaning and building service workers (5241)
449	Maids and housemen (5242, 5249)
V(453)	Janitors and cleaners (5244)
454	Elevator operators (5245)
455	Pest control occupations (5246)
	Personal Service Occupations
456	Supervisors, personal service occupations (5251)
457	Barbers (5252)
458	Hairdressers and cosmetologists (5253)
459	Attendants, amusement and recreation facilities (5254)
463	Guides (5255)
464	Ushers (5256)
465	Public transportation attendants (5257)
466	Baggage porters and bellhops (5262)
467	Welfare service aides (5263)
468	Child care workers,except private household (5264)
469	Personal service occupations, n.e.c. (5258, 5269)

FARMING, FORESTRY, AND FISHING OCCUPATIONS

	Farm Operators and Managers
W(473)	Farmers, except horticultural (5512-5514)
474	Horticultural specialty farmers (5515)
475	Managers, farms, except horticultural (5522-5524)
476	Managers, horticultural specialty farms (5525)
	Other Agricultural and Related Occupations
	Farm Occupations, Except Managerial
477	Supervisors, farm workers (5611)
479	Farm workers (5612-5617)
483	Marine life cultivation workers (5618)
484	Nursery workers (5619)
	Related Agricultural Occupations
485	Supervisors, related agricultural occupations (5621)
486	Groundskeepers and gardeners, except farm (5622)
487	Animal caretakers, except farm (5624)
488	Graders and sorters, agricultural products (5625)
489	Inspectors, agricultural products (5627)
	Forestry and Logging Occupations
494	Supervisors, forestry and logging workers (571)
495	Forestry workers, except logging (572)
496	Timber cutting and logging occupations (573, 579)
	Fishers, Hunters, and Trappers
497	Captains and other officers, fishing vessels (pt 8241)
498	Fishers (583)
499	Hunters and trappers (584)

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

	Mechanics and Repairers
503	Supervisors, mechanics and repairers (60)
	Mechanics and Repairers, Except Supervisors
	Vehicle and Mobile Equipment Mechanics and Repairers
X(505)	Automobile mechanics (pt 6111)
506	Automobile mechanic apprentices (pt 6111)
507	Bus, truck, and stationary engine mechanics (6112)
508	Aircraft engine mechanics (6113)
509	Small engine repairers (6114)
514	Automobile body and related repairers (6115)
515	Aircraft mechanics, exc. engine (6116)
516	Heavy equipment mechanics (6117)
517	Farm equipment mechanics (6118)
518	Industrial machinery repairers (613)
519	Machinery maintenance occupations (614)
	Electrical and Electronic Equipment Repairers
523	Electronic repairers, communications and industrial equipment (6151, 6153, 6155)
525	Data processing equipment repairers (6154)
526	Household appliance and power tool repairers (6156)
527	Telephone line installers and repairers (6157)
529	Telephone installers and repairers (6158)
533	Miscellaneous electrical and electronic equipment repairers (6152, 61
534	Heating, air conditioning, and refrigeration mechanics (616)
	Miscellaneous Mechanics and Repairers
535	Camera, watch, and musical instrument repairers (6171, 6172)
536	Locksmiths and safe repairers (6173)
538	Office machine repairers (6174)
539	Mechanical controls and valve repairers (6175)
543	Elevator installers and repairers (6176)
544	Millwrights (6178)
547	Specified mechanics and repairers, n.e.c. (6177, 6179)
549	Not specified mechanics and repairers
	Construction Trades
	Supervisors, construction occupations
553	Supervisors; brickmasons, stonemasons, and tile setters (6312)
554	Supervisors, carpenters and related workers (6313)
555	Supervisors, electricians and power transmission installers (6314)
556	Supervisors; painters, paperhangers, and plasterers (6315)
557	Supervisors; plumbers, pipefitters, and steamfitters (6316)
558	Supervisors, n.e.c. (6311, 6318)
	Construction Trades, Except Supervisors
563	Brickmasons and stonemasons (pt 6412, pt 6413)
564	Brickmason and stonemason apprentices (pt 6412, pt 6413)
565	Tile setters, hard and soft (6414, pt 6462)
566	Carpet installers (pt 6462)
Y(567)	Carpenters (pt 6422)
569	Carpenter apprentices (pt 6422)
573	Drywall installers (6424)

  - 575 Electricians (pt 6432)
    - 576 Electrician apprentices (pt 6432)
  - 577 Electrical power installers and repairers (6433)
  - 579 Painters, construction and maintenance (6442)
  - 583 Paperhangers (6443)
  - 584 Plasterers (6444)
  - 585 Plumbers, pipefitters, and steamfitters (pt 645)
    - 587 Plumber, pipefitter, and steamfitter apprentices (pt 645)
  - 588 Concrete and terrazzo finishers (6463)
  - 589 Glaziers (6464)
  - 593 Insulation workers (6465)
  - 594 Paving, surfacing, and tamping equipment operators (6466)
  - 595 Roofers (6468)
  - 596 Sheetmetal duct installers (6472)
  - 597 Structural metal workers (6473)
  - 598 Drillers, earth (6474)
  - 599 Construction trades, n.e.c. (6467, 6475, 6476, 6479)

Extractive Occupations
  - 613 Supervisors, extractive occupations (632)
  - 614 Drillers, oil well (652)
  - 615 Explosives workers (653)
  - 616 Mining machine operators (654)
  - 617 Mining occupations, n.e.c. (656)

Precision Production Occupations
  - 633 Supervisors, production occupations (67, 71)
  - Precision Metal Working Occupations
    - 634 Tool and die makers (pt 6811)
      - 635 Tool and die maker apprentices (pt 6811)
    - 636 Precision assemblers, metal (6812)
    - 637 Machinists (pt 6813)
      - 639 Machinist apprentices (pt 6813)
    - 643 Boilermakers (6814)
    - 644 Precision grinders, fitters, and tool sharpeners (6816)
    - 645 Patternmakers and model makers, metal (6817)
    - 646 Lay-out workers (6821)
    - 647 Precious stones and metals workers (Jewelers) (6822, 6866)
    - 649 Engravers, metal (6823)
    - 653 Sheet metal workers (pt 6824)
      - 654 Sheet metal worker apprentices (pt 6824)
    - 655 Miscellaneous precision metal workers (6829)
  - Precision Woodworking Occupations
    - 656 Patternmakers and model makers, wood (6831)
    - 657 Cabinet makers and bench carpenters (6832)
    - 658 Furniture and wood finishers (6835)
    - 659 Miscellaneous precision woodworkers (6839)
  - Precision Textile, Apparel, and Furnishings Machine Workers
    - 666 Dressmakers (pt 6852, pt 7752)
    - 667 Tailors (pt 6852)
    - 668 Upholsterers (6853)
    - 669 Shoe repairers (6854)
    - 673 Apparel and fabric patternmakers (6856)
    - 674 Miscellaneous precision apparel and fabric workers (6859, pt 7752)

Precision Workers, Assorted Materials
675 Hand molders and shapers, except jewelers (6861)
676 Patternmakers, lay-out workers, and cutters (6862)
677 Optical goods workers (6864, pt 7477, pt 7677)
678 Dental laboratory and medical appliance technicians (6865)
679 Bookbinders (6844)
683 Electrical and electronic equipment assemblers (6867)
684 Miscellaneous precision workers, n.e.c. (6869)
Precision Food Production Occupations
686 Butchers and meat cutters (6871)
687 Bakers (6872)
688 Food batchmakers (6873, 6879)
Precision Inspectors, Testers, and Related Workers
689 Inspectors, testers, and graders (6881, 828)
693 Adjusters and calibrators (6882)
Plant and System Operators
694 Water and sewage treatment plant operators (691)
695 Power plant operators (pt 693)
696 Stationary engineers (pt 693, 7668)
699 Miscellaneous plant and system operators (692, 694, 695, 696)

OPERATORS, FABRICATORS, AND LABORERS

Machine Operators, Assemblers, and Inspectors

Machine Operators and Tenders, except Precision
Metalworking and Plastic Working Machine Operators
703 Lathe and turning machine set-up operators (7312)
704 Lathe and turning machine operators (7512)
705 Milling and planing machine operators (7313, 7513)
706 Punching and stamping press machine operators (7314, 7317, 7514, 7517)
707 Rolling machine operators (7316, 7516)
708 Drilling and boring machine operators (7318, 7518)
709 Grinding, abrading, buffing, and polishing machine operators (7322, 7324, 7522)
713 Forging machine operators (7319, 7519)
714 Numerical control machine operators (7326)
715 Miscellaneous metal, plastic, stone, and glass working machine operators (7329, 7529)
717 Fabricating machine operators, n.e.c. (7339, 7539)
Metal and Plastic Processing Machine Operators
719 Molding and casting machine operators (7315, 7342, 7515, 7542)
723 Metal plating machine operators (7343, 7543)
724 Heat treating equipment operators (7344, 7544)
725 Miscellaneous metal and plastic processing machine operators (7349, 7549)
Woodworking Machine Operators
726 Wood lathe, routing, and planing machine operators (7431, 7432, 7631, 7632)
727 Sawing machine operators (7433, 7633)
728 Shaping and joining machine operators (7435, 7635)
729 Nailing and tacking machine operators (7636)
733 Miscellaneous woodworking machine operators (7434, 7439, 7634, 7639)

Printing Machine Operators
734 Printing machine operators (7443, 7643)
735 Photoengravers and lithographers (6842, 7444, 7644)
736 Typesetters and compositors (6841, 7642)
737 Miscellaneous printing machine operators (6849, 7449, 7649)

Textile, Apparel, and Furnishings Machine Operators
738 Winding and twisting machine operators (7451, 7651)
739 Knitting, looping, taping, and weaving machine operators (7452, 7652)
743 Textile cutting machine operators (7654)
744 Textile sewing machine operators (7655)
745 Shoe machine operators (7656)
747 Pressing machine operators (7657)
748 Laundering and dry cleaning machine operators (6855, 7658)
749 Miscellaneous textile machine operators (7459, 7659)

Machine Operators, Assorted Materials
753 Cementing and gluing machine operators (7661)
754 Packaging and filling machine operators (7462, 7662)
755 Extruding and forming machine operators (7463, 7663)
756 Mixing and blending machine operators (7664)
757 Separating, filtering, and clarifying machine operators (7476, 7666, 7676)
758 Compressing and compacting machine operators (7467, 7667)
759 Painting and paint spraying machine operators (7669)
763 Roasting and baking machine operators, food (7472, 7672)
764 Washing, cleaning, and pickling machine operators (7673)
765 Folding machine operators (7474, 7674)
766 Furnace, kiln, and oven operators, exc. food (7675)
768 Crushing and grinding machine operators (pt 7477, pt 7677)
769 Slicing and cutting machine operators (7478, 7678)
773 Motion picture projectionists (pt 7479)
774 Photographic process machine operators (6863, 6868, 7671)
777 Miscellaneous machine operators, n.e.c. (pt 7479, 7665, 7679)
779 Machine operators, not specified

Fabricators, Assemblers, and Hand Working Occupations
783 Welders and cutters (7332, 7532, 7714)
784 Solderers and brazers (7333, 7533, 7717)
785 Assemblers (772, 774)
786 Hand cutting and trimming occupations (7753)
787 Hand molding, casting, and forming occupations (7754, 7755)
789 Hand painting, coating, and decorating occupations (7756)
793 Hand engraving and printing occupations (7757)
794 Hand grinding and polishing occupations (7758)
795 Miscellaneous hand working occupations (7759)

Production Inspectors, Testers, Samplers, and Weighers
796 Production inspectors, checkers, and examiners (782, 787)
797 Production testers (783)
798 Production samplers and weighers (784)
799 Graders and sorters, exc. agricultural (785)

Transportation and Material Moving Occupations

	Motor Vehicle Operators
803	Supervisors, motor vehicle operators (8111)
Z(804)	Truck drivers, heavy (8212, 8213)
805	Truck drivers, light (8214)
806	Driver-sales workers (8218)
808	Bus drivers (8215)
809	Taxicab drivers and chauffeurs (8216)
813	Parking lot attendants (874)
814	Motor transportation occupations, n.e.c. (8219)
	Transportation Occupations, Except Motor Vehicles
	Rail Transportation Occupations
823	Railroad conductors and yardmasters (8113)
824	Locomotive operating occupations (8232)
825	Railroad brake, signal, and switch operators (8233)
826	Rail vehicle operators, n.e.c. (8239)
	Water Transportation Occupations
828	Ship captains and mates, except fishing boats (pt 8241, 8242)
829	Sailors and deckhands (8243)
833	Marine engineers (8244)
834	Bridge, lock, and lighthouse tenders (8245)

	Material Moving Equipment Operators
843	Supervisors, material moving equipment operators (812)
844	Operating engineers (8312)
845	Longshore equipment operators (8313)
848	Hoist and winch operators (8314)
849	Crane and tower operators (8315)
853	Excavating and loading machine operators (8316)
855	Grader, dozer, and scraper operators (8317)
856	Industrial truck and tractor equipment operators (8318)
859	Miscellaneous material moving equipment operators (8319)

Handlers, Equipment Cleaners, Helpers, and Laborers

863	Supervisors, handlers, equipment cleaners, and laborers, n.e.c. (85)
864	Helpers, mechanics and repairers (863)
	Helpers, Construction and Extractive Occupations
865	Helpers, construction trades (8641-8645, 8648)
866	Helpers, surveyor (8646)
867	Helpers, extractive occupations (865)
869	Construction laborers (871)
873	Production helpers (861, 862)
	Freight, Stock, and Material Handlers
875	Garbage collectors (8722)
876	Stevedores (8723)
877	Stock handlers and baggers (8724)
878	Machine feeders and offbearers (8725)
883	Freight, stock, and material handlers, n.e.c. (8726)
885	Garage and service station related occupations (873)
887	Vehicle washers and equipment cleaners (875)
888	Hand packers and packagers (8761)
889	Laborers, except construction (8769)

EXPERIENCED UNEMPLOYED NOT CLASSIFIED BY OCCUPATION

905	Last job Armed Forces
909	Last worked 1974 or earlier